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# SEMITO-HAMITIC LANGUAGES

AN ESSAY IN CLASSIFICATION



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## EDITORS' NOTE

Since 1958 the Language Department of the Institute of the Peoples of Asia, USSR Academy of Sciences, has been publishing the "Languages of Asia and Africa" Series in Russian. By the end of 1964 more than 60 booklets, presenting brief outlines of the languages in question, had appeared.

Some of the booklets are devoted to language groups, e. g. *Iranian Languages*, *Languages of India*, *Pakistan and Ceylon*, *Mongolian Languages and Dialects of China*, *Dard Languages*, *Dravidian Languages*.

Most of the booklets, however, describe either individual living languages of the different peoples of Asia and Africa—Arabic, Amharic, Uigur, Modern and Old Written Mongol, Persian, Pashto (Afghan), Farsi-Kabuli, Baluchi, Kurd, Hindi, Urdu, Marathi, Assamese, Telugu, Tamil, Malayalam, Chinese, Tibetan, Chuang, Thai (Siamese), Laotian, Burmese, Vietnamese, Khmer, Indonesian, Tagalog (in the Philippines), Korean, Japanese, Swahili, Hausa, Yoruba, Luganda, Malinke a. o., or individual languages of the past which have played a considerable historical and cultural role in Asia and Africa: Egyptian, Phoenician, Akkadian, language of the Avesta, Old Persian, Middle Persian, Sanskrit, Pali, Hittite, Old Uigur, Old Chinese, Old Javanese (Kavi), Manchu, etc.

Although most of the essays follow more or less the same plan, there obviously are in each some deviations from the common scheme and other particularities due to the specific features of each language or the degree of elaboration of its problems in preceding studies. The essays on language groups differ somewhat from those on individual languages both in composition and in the scope of the linguistic material used.

The series is intended for a broad circle of linguists and historians—research workers and post-graduate students as well as lecturers and undergraduates of the history and philology departments of the Universities.

The keen interest in the "Languages of the Asia and Africa" Series both in and outside the USSR has led to the publication of English translations of the Series, in order to make it more accessible to readers abroad.

The Editors beg readers to address their wishes and criticisms to: Editorial Board of the "Languages of Asia and Africa" Series, Central Department of Oriental Literature, "Nauka" Publishing House, Armyansky pereulok 2, Moscow, USSR, for use in case of republication of the essays in English, or an eventual widening of the subject-matter of the Series.

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## GENERAL INFORMATION. PHONOLOGY. THE ROOT AND THE WORD

### THE PROBLEM

Until lately students of Semitic did not make use of the material of kindred languages. All who had studied Arabic, Ethiopic, Hebrew, Aramaic, or Akkadian, usually had a recollection from their University days that the Semitic languages are related to the so-called "Hamitic" languages; but the notion of the character and the degree of this affinity has been very vague. The many years' work of M. Cohen in the field of historical comparison of the Semito-Hamitic languages as a whole failed to impress most Semitologists.

However, the studies of the past ten or fifteen years, especially the works of M. Cohen, G. Castellino, J. Friedrich, J. H. Greenberg, A. Klingenheben, D. A. Olderogge, O. Rössler, W. Vycichl, a. o., have shown that no "Hamitic" linguistic family (or branch of a family), as contrasted to a "Semitic" one, does exist; there is a single family of languages, apparently subdivided into five branches: the Semitic, the Berbero-Libyan, the Egyptian, the Cushitic, and the Tchad branch. It is therefore obvious—as is proved quite clearly by the analogy of the long history of Indo-European linguistics—that a deeper insight into the problems of the Semitic branch is impossible unless the material of the other four branches is taken into consideration. This has given rise to the problem of the classification of the entire Semito-Hamitic linguistic family.<sup>1</sup>

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<sup>1</sup> Another problem is presented by the term to be used for this linguistic family. As "Hamitic" languages are non-existent, the term "Semitic-Hamitic" loses sense. O. Rössler has suggested that the Berbero-Libyan languages be regarded as a group of Semitic (O. Rössler, "Der semitische Charakter der libyschen Sprache", *Zeitschrift für Assyriologie*, NF XVI (50), 1952, pp. 121-150). However, an arbitrary widening of the notion "Semitic" is obviously no improvement upon the classification (cf. S. Moscati, "Chi furono i Semiti?", *Atti della Accademia*

The historical study of the Semito-Hamitic vocabulary is still *in embryo*. There do exist good practical dictionaries of individual Semitic languages (but not of all), of Egyptian and Coptic, of a couple of Berber dialects, short dictionaries of several Cushitic languages, and dictionaries of Hausa in the Tchad group. But the historical-etymological data cited in some of these are very incomplete and not always dependable; dictionaries of Semitic languages do not usually contain references to other languages of the Semito-Hamitic family; the great *Ägyptisches Wörterbuch* by A. Erman and H. Grapow, although it does contain such references, fails to distinguish the common lexical heritage from borrowed material. There are no etymological dictionaries for the separate branches of the family, although there are special studies on Common Semito-Hamitic words in Egyptian and Berber. Several Semito-Hamitic languages are represented only by glossaries to texts and samples taken down in the field. The essay of a comparative root dictionary of all Semito-Hamitic languages by M. Cohen<sup>2</sup> is very useful but not faultless from the point of view of reliability. Studies of lexical affinity between any two branches of the family are accidental and scarce. The laws of phonetic correspondences between the branches have not been sufficiently elucidated.<sup>3</sup>

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*Nazionale dei Lincei*", Anno CCCLIV, *Memorie*, Ser. VIII, Vol. VIII, 1, Roma, 1957). More to the point is the suggestion of J. H. Greenberg that the family in question should be termed "Afro-Asiatic", being the only one represented both in Africa and Asia (J. H. Greenberg, *Studies in African Linguistic Classification*, New Haven, 1955, p. 54). Still, the term "Semito-Hamitic linguistic family" is perhaps too deeply rooted in tradition to be easily discarded. One should note that all Semito-Hamitic languages evidently have their origin in Northern Africa (cf. D. A. Oldcrogge, "The Origin of the Hausa Language", *Papers of the Soviet Delegation to the Vth International Congress of Anthropologists*, Moscow, 1956, p. 14 ff.). Judging by the historical proximity of all the branches, Semitic can hardly be an exception.

<sup>2</sup> M. Cohen, *Essai comparatif sur le vocabulaire et la phonétique du chamito-semitique*, Paris, 1947.

<sup>3</sup> Thus, M. Cohen gives no explanation of the fact that, according to his data, Sem. *š* is variously reflected in Cushitic as *š*, *č*, *š*, *s*, *ḍ*, *ṭ*, etc., and in Berber as *ḍ*, *z*, *s*, or that Sem. *ṭ* is reflected in Cushitic and Berber as *ḍ*/*ṭ*, as *ḍ*, and as *t*. In all cases the difference does not seem to be due to position: thus Sem. Arab. *šfr* 'to be yellow', Akk. *šarp-* 'purc silver' are compared to Berb. *a-zraḥ* 'silver' and to Cush. Agau *čibi*, Bed. *giba*, Galla *kuba*; but Sem. (*i*)*šba* 'finger' is compared to Berb. *a-daḍ*, Sem. *šlū/i* 'to fry' is compared to Berb. *əsli* 'to grill', and Sem. Hebr. *šippōr* 'bird' to Cush. Somali *šimbir*, Saho-Afar *kimbiro*, Galla *z/šimbiro*. Likewise, Arab. *ṭibiḳ-* 'nipple' is compared to Cush. Bed. *šefi* 'to drink milk', but Sem. Hebr. *ṭippā* 'drop' to Cush. Agau *ṭibbaj*, Galla *ḍimbiba*, *čoba* 'to drop' a. s. o. This kind of comparisons can be convincing only if the dependenc of the reflexes on the place of the language inside the branch and on the position of the phoneme in the



Although the grammatical affinity of all Semito-Hamitic languages has long been established beyond doubt, there has so far, to the best of my knowledge, been no attempts to present a comparative grammatical review of the whole family.

However, in the morphology of the pronoun, the noun, and the verb of the different Semito-Hamitic languages there have been established sufficient though sometimes rather approximate data which prove their material affinity. These data can be taken as a base for a preliminary classification of the languages in question.

This paper is intended to be an attempt at such a classification. It is based on (1) the type of root- and word-formation, (2) the system of gender-, number- and case-forms of the noun, (3) the pronominal system, (4) the system of finite forms of the verb.

It appears useful to introduce, alongside a genetic classification, also a subdivision of the languages of the Semito-Hamitic family according to diachronic stages. This will make the degree of correlation between the languages under comparison more distinct. Following the practice of Iranian linguistics, we suggest distinguishing among the Semito-Hamitic languages those belonging to the Ancient, Middle, and New stages. The following characteristic criteria will be taken as typical of the stages in question:

**Ancient stage:** a complete or a good state of preservation of the initial phonological system; the external nominal and verbal inflection well preserved.

**Middle stage:** simplification of the initial phonological system, loss of the vowels of the external nominal and partly verbal inflection, partial remodelling of the system of morphology.

**New stage:** remodelling of the phonological system, complete reshaping of the system of morphology.

In this paper we will only treat the relations between entire branches; the generally recognised classification of languages inside a branch will be followed (with minor terminological changes), i. e.:

The Semitic languages are subdivided into four groups: (a) The Northern Peripheral, or North-Eastern (Ancient and Middle stages: *Akkadian*); (b) the Northern Central, or North-Western (Ancient stage: *Canaanite*, *Amorite*—both very inadequately documented—and *Ugaritic*; Middle stage: *Hebrew*, *Phoenician-Punic*, and different *Aramaic* dialects; New

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word is clarified. However, this has not as yet been done with respect to the individual branches of Semito-Hamitic, except the Semitic branch.

stage: *Neo-Syriac*, or "Neo-Assyrian", and another *Aramaic* dialect preserved in Syria); (c) the Southern Central, or Arabic (Ancient stage: Classical *Arabic*, the later stages: *Arabic dialects* and *Maltese*); and (d) the Southern Peripheral, or South-Arabian-Ethiopic (Ancient—or Middle?—stage: *Sabaeen*, *Minaean*, *Qatabanian* a. o.; Middle stage: *Gə'əz*, or Ethiopic; New stage: South-Arabian languages—*Mehri*, *Šahri*, *Sogotri* and related dialects; Abyssinian languages—*Amharic*, *Tigre*, *Tigriña*, or Tigrāi, *Harari*, *Gurage*, *Argobba*).

Certain archaic features in the grammar and partly in the vocabulary connect the Northern and the Southern Peripheral groups, while certain grammatical innovations connect the Northern and the Southern Central and, partly, the Southern Central and Southern Peripheral groups; on the other hand, in phonetics and vocabulary the two northern groups show more affinity to each other, as well as the two southern groups.

The Egyptian branch is represented solely by the *Egyptian* language at the different stages, from the Ancient (*Old Egyptian*, 3rd millennium B. C.)<sup>4</sup> to the New (*Coptic* dialects, 3rd—16th centuries A. D.).

The Berbero-Libyan branch is represented by a multitude (up to 300) of closely related dialects and sub-dialects at the New stage; the *Tamašek* (Tuareg) language stands grammatically somewhat apart, and is important also because it has but few borrowings from Arabic, which abound in the other Berber dialects; its area comprises the Central Sahara and a region on both banks of the Niger. Among the other dialects, mention should be made of: the Western group including the dialects of the *Tašəlhit* area (Šilh, or Chleukh) in Mauretania and Morocco, the dialects of the *Tamazigt* area, the *Riff* language in Morocco, a. o., and the Northern group, of which the most important representatives are the *Kabyle*, or Zouaoua, and the *Chaouia* dialects in Algeria. Other dialects are dispersed all over Northern Africa, from Senegal to the Siwah Oasis in Egypt. All modern Berber languages are as closely related to each other as the languages of any one of the four groups of the Semitic branch are among themselves. To the same branch apparently belonged the now extinct language of the *Guanches* in the Canary Islands. The *Numidian-Libyan* language (Middle stage) is represented by short

<sup>4</sup> Since the ancient Egyptian texts are not vocalized, it is difficult to decide if the vocalic flexion still existed in Old Egyptian or not; its phonological system is already different from the supposed Common Semito-Hamitic, and it is possible that Old Egyptian should be classed as belonging to the Middle Stage, to which Middle and New Egyptian certainly belong.

inscriptions and by glosses and proper names in Greek and Latin texts; the data pertaining to this language are by no means clear.

The Cushitic languages, all belonging to the New stage, are subdivided, according to M. A. Bryan (with J. H. Greenberg's corrections), into the following five groups: (a) the Northern (the *Bedawye* language, mainly in the Republic of Sudan); (b) the Eastern (the languages *Saho-Afar*,<sup>5</sup> in Eritrea and Northwestern Ethiopia); *Oromo*, or "Galla", with a number of more or less independent dialects, in western, central, and southern Ethiopia and in northern and eastern Kenya; *Somali*, in Somalia, south-eastern Ethiopia, and eastern Kenya; the so-called "*Sidamo*" group of dialects, in the centre of Ethiopia; and several related dialects;<sup>6</sup> (c) the Central (minor dispersed dialects of *Agau* in Eritrea and northern Ethiopia);<sup>7</sup> (d) the Western, comprising a multitude of small languages and dialects, mostly along the western borders of Ethiopia: *Kaffa* (Kaffiço), *Wålamo*, *Č'ara*, the dialects of the so-called "*Gimirra*" group and many others; and (e) the Southern: *Irakū*, and possibly *Mbugu* and other minor languages of Tanganyika.<sup>8</sup>

The Tchad languages, all of which likewise belong to the New stage, are, according to J. H. Greenberg, subdivided into nine groups comprising nearly a hundred languages, dialects and sub-dialects; for most of them only a very preli-

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<sup>5</sup> The 'Afar tribes are also known as Danākīl.

<sup>6</sup> In the European linguistic and ethnological terminology it is in some cases a common practice to employ nicknames coined by the neighbours instead of the proper names used by the speakers of the language themselves. To such nicknames belong, among others, the terms "Galla" (self-appellation *Oromo*; also known by the separate local tribal names: Mačča, Tulama, Ittu, Arussi, in Kenya — Borana, Bararetta, Kafira, etc.) and "Sidamo" (lit. "Pagans", or, possibly, "Immigrants"; this term includes different dialectal groups, partly Eastern Cushitic, or "Sidamo" proper, partly Western Cushitic, as *Wålamo* a. o.).

<sup>7</sup> The more important dialects of the *Agau* group are *Bilin* in Eritrea, *Koila* (spoken by the ethnic group Falasha, Judaic by religion), *Chamir*, *Quara* a. o. in Ethiopia.

<sup>8</sup> See M. A. Bryan, *The Distribution of the Semitic and Cushitic languages of Africa*, London, 1947; J. H. Greenberg, *Studies in African Linguistic Classification*, New Haven, 1955, pp. 43 ff. The northern and the eastern groups are sometimes contrasted as "Low Cushitic" to the central and western (and southern) groups termed "High Cushitic". The difference between them is so marked that some scholars find it impossible to class the "Low Cushitic" and the "High Cushitic" as belonging to one linguistic branch. The "Low Cushitic" languages (especially the northern group—the *Bedawye* dialects) are considerably more archaic; in the "High Cushitic" a much greater digression from the ancient prototype, as well as important grammatical simplifications, are observed (e. g., the extinction of the Common Semito-Hamitic verbal inflection, drastic changes in the pronominal system, etc.).

minary classification can so far be given. The most important language is *Hausa*, belonging to the 1st, or Western group (mainly in Nigeria and partly in the Republic of the Niger). Linguistically most important are the dialects of the 2nd, or Central group (the languages and dialects *Logone-Kotoko* a. o., in Northern Cameroon and in the Tchad Republic), and of the 9th, or Eastern group (the languages and dialects *Somrai*, *Mubi* a. o. in the Tchad Republic). The 3rd to 8th groups will be conventionally termed in this paper the Southern groups.<sup>9</sup>

For comparative purposes it is obviously expedient to use the material of the Ancient, or, at least, the Middle stage. At the New stage the Semito-Hamitic languages have probably diverged as widely as, say, French, Russian, Persian, and Bengali in the Indo-European family. Their divergences, both phonetic and typological, are so great that whenever the preceding stages of linguistic development are unknown, their historical and comparative study meets with almost insurmountable difficulties. Fortunately, at least the Berber dialects and some of the Cushitic (Bedawye) still preserve many archaic features which enable us to reconstruct, if approximately, their condition at the Middle stage. The Tchad languages, on the other hand, seem at first glance more archaic than, for example, Old Akkadian, although the archaism of the former may in many cases be illusory, because the features in question may in point of fact prove to be the outcome of an isolated secondary development. However, it is not impossible that the Tchad languages, existing under conditions of a long isolation from the other languages of the family, may have preserved some traits of great antiquity.

The application of the material of the multifarious innovations appearing in the Semito-Hamitic languages at the New stage to the task of their classification would unnecessarily complicate the problem and make it impossible to present it in a single paper. We will therefore limit ourselves mainly to the level of the Ancient and Middle stages. We have adequate material dating from these stages for the Semitic and the Egyptian branches; for the Berbero-Libyan branch we will mainly use for comparison the "Common Berber" forms which have been deduced from comparative study of the individual dialects. As far as can be concluded from meagre but seemingly reliable data, these "Common Berber" forms, though not directly identical with the phenomena which must have existed at the Middle stage, do not materially differ from them. For the Cushitic branch, we will have

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<sup>9</sup> J. H. Greenberg, *op. cit.*, pp. 48-49.

to restrict ourselves to forms which are either obviously old or convincingly reconstructible, leaving the condition of Cushitic languages at the Middle stage *sub judice* in all cases where the material is insufficient for a reliable reconstruction. Finally, the Tchad languages have to be studied in their present condition. The situation in the Tchad languages appears in many respects to be unique; the question must be left open, to what extent this is due to an early separation of the branch, or how far it is a seeming phenomenon due to an unwarranted comparison of the Tchad languages, belonging as they do to the New stage, with languages of the earlier stages of development.

Several Semito-Hamitic languages being insufficiently investigated, and the author of this paper being a Semitologist and not a specialist in African linguistics, some languages will have to be left out of consideration, and much of the information will be taken at second hand. For the Cushitic languages we will make use mainly of Bedawye (after L. Reinisch), and for the Tchad languages—almost exclusively of Hausa. It goes without saying that the author is fully aware of the fact that this considerably detracts from his results, and in some cases may cast doubt upon his conclusions concerning these particular branches of Semito-Hamitic.

The literature on the different languages of the Semito-Hamitic family is immense. In order to be able to condense the material into one paper we have had to dispense with a great many references. This by no means implies that the author does not acknowledge the extremely useful work of all previous students of the problem. Indeed, there are but few ideas in this paper which have not been suggested before—but the author is responsible for their systematic presentation and for the general results.<sup>10</sup>

#### SOME GRAMMATICAL FEATURES OF THE ADSTRATUM OF SEMITIC

For a better understanding of the problems of Semito-Hamitic, it is advisable to make an excursus into some of the ancient languages of neighbouring areas which served as a substratum or adstratum of Semitic. As the most repre-

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<sup>10</sup> J. Kuryłowicz' very important monograph, *L'apophonie en sémitique*, Wrocław-Warszawa-Kraków, 1961, reached me too late for his results to be incorporated in this paper. Preliminarily one should mention that, obviously, any decision on forms as being Proto-Semitic or later developments must not contradict the facts of Common Semito-Hamitic; this in some instances does not apply to the reconstructions suggested by J. Kuryłowicz; in several cases we cannot agree with his relative evaluation and chronology of certain grammatical phenomena.

sentative we will take Sumerian. Characteristic of this language, as well as of the non-related Hurrian-Urartean and others,<sup>11</sup> is the ergative construction of the sentence. Its essence lies in the non-existence of the grammatical category of the direct object. Instead of the contrast Subject: Object there is a contrast Subject of Action: Subject of State.

In the Indo-European languages which have come down to us every action can grammatically be regarded either from the point of view of the logical subject, or from that of the object. To these two points of view there correspond two voices of the transitive verb: the Active and the Passive. In the former instance the action is regarded from the point of view of the logical subject, which is also grammatically the subject (*homo baculumprehendit* — the logical and grammatical subject is expressed by the Nominative as the case-form of the subject; the object is expressed by the Accusative, as a special object-case; the verbal form is in concord with the logical and grammatical subject). In the latter instance the action is regarded from the point of view of the logical object which here is grammatically the subject (*baculus ab homineprehenditur* — the logical subject of the action is expressed by an oblique case, the logical object is the grammatical subject and therefore is expressed by the Nominative; the verbal form is in concord with the logical object which is the grammatical subject).

In languages having an ergative construction there is no grammatical direct object, and there cannot exist voices because it is impossible separately to characterize the action in the verbal form from the point of view of the logical subject, without taking into consideration the point of view of the logical object.<sup>12</sup> What we grammatically regard as the object of the action is for the ergative languages the subject of a state, namely, the state resulting from the action. It therefore is expressed by the case-form of the subject of the state (the Absolute case<sup>13</sup> which corresponds to our Nominative) even if it logically also is the object of an action.

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<sup>11</sup> The same syntactical construction is also present in Elamite, although it lacks case-inflection.

<sup>12</sup> In Georgian, which is not typical as a language with ergative construction, there exists a Passive voice, but it has separate forms of its own only in the group of tenses which require a nominative construction; in the group of tenses which require an ergative construction, the Passive voice is only a special case of the use of forms which also have an active sense (e. g. resultative, etc.).

<sup>13</sup> The same case-form is used for the noun when unconnected with verbal action; this function is also performed in Indo-European by the Nominative.

In point of fact, the subject of stative (intransitive) verbs is in ergative languages expressed by the Absolute case-form just as in Indo-European the subject of the verb is expressed by the Nominative ('the man stood', Sum. \**lú i-gub*). But with the verbs of action (transitive), the Absolute case-form corresponding to our Nominative is used in ergative languages not for the subject of the action but for the subject of the state resulting from this action, i. e., what from our standpoint is the logical object of the action ('the man takes the stick', Sum. \**lú-e ġidru i-b-dib-e*). The logical subject of the action is here expressed by a special case-form, the so-called Ergative (Sum. *lú-e*). In this respect the ergative construction is similar to the Passive with which it is often confused ('the stick is taken by the man'—the logical object in the Nominative). However, the difference lies in the concord of the verb.

In our Passive, the point of view of the logical object dominates: the latter is grammatically the subject expressed by the Nominative, and the verbal form is in concord with it (and with it only), while the case-form of the logical subject which grammatically appears here as an indirect object, is oblique, and the verbal form is not in concord with it. In the ergative construction, on the contrary, both the point of view of the logical subject of the action and that of the logical subject of the resulting state (the logical object) are reflected simultaneously. Therefore both are grammatically subjects, and the verbal form may be in concord with both, which is impossible in a passive construction.

Let us take two examples. Is the verbal form in Sum. \**lú-e ġidru i-n-dib* ('the man took the stick') active or passive? It is not active because the Direct (Absolute) case-form *ġidru* ('stick') expresses the logical object, while the logical subject is expressed by a quasi-oblique case-form *-e* (\**lú-e* ('the man')). But neither is it passive because in this case the verb would be in concord with the grammatical subject which is logically the object—i. e., with the word in the Direct case—while actually, through the verbal prefix of the subject *-n-* (gender of persons), it is in concord with *lú-e* and not with *ġidru*.

Another example. Is the verbal form in Sum. \**lú-e ġidru i-b-dib-e* ('the man takes the stick') active or passive? It is not active by the same reasoning as in the first example, namely, because it is the logical object *ġidru* ('stick') which is expressed by the Direct case, while the logical subject has the oblique case-form in *-e*. But neither is it passive because, though the subject-prefix *-b-* (gender of things) brings it into concord with *ġidru* ('stick') as it should be in the Passive

voice, the second subject-affix *-e* brings it into concord with *lú* ('man') just as if it were the Active voice.

The Absolute case-form *gidru* is a Direct case corresponding not to our Accusative but to our Nominative because it expresses a subject (namely, the subject of the state resulting from the action). But neither can the Ergative case-form be regarded as oblique since it is in concord with the verbal form and also expresses a subject (namely, the subject of the action).

Thus, the transitive verb in ergative languages is neutral as to voice and corresponds both to the Indo-European Active and to the Indo-European Passive. A "doubly-oriented" conjugation is usually characteristic of it.

Therefore in all ergative languages there also exists a formal distinction between verbs of action and verbs of state. The former usually have a conjugation bringing the verbal form in concord both with the object and the subject, and the latter, only with the subject. Of course, this is but the general pattern; in individual languages there develop many complicating details.

Summing up, we can note the following features as usually characteristic of languages with a typical ergative construction of the sentence: they have no grammatical direct object, from which follows that (1) no Accusative can exist; (2) no Passive and Active voice can exist; (3) one and the same case-form (the Absolute) corresponds both to our Nominative (with intransitive verbs), and to our Accusative (with transitive verbs); (4) with transitive verbs, a special Ergative case-form corresponds to our Nominative; (5) there is a formal distinction between transitive and intransitive verbs; (6) transitive verbs have usually a "doubly-oriented" conjugation.<sup>14</sup>

The features of ergative construction<sup>15</sup> may help to understand some peculiarities of Semito-Hamitic.

## PHONOLOGY

The oldest phonological system is best preserved in Ancient Semitic; there are reasons to believe that it did not differ greatly from the Common Semito-Hamitic. Some correc-

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<sup>14</sup> The ergative construction is most conveniently interpreted as having arisen from a non-verbal construction preceding the development of finite verbal forms: 'man—standing'→'the man stands'; 'stick—taking—by man'→'stick taken by man' || 'man takes stick'. A variant of the same construction is the possessive: 'stick—taking—man's (of man)'. In the resulting verbal construction the subject of the transitive verb is in the Genitive.

<sup>15</sup> There are also other features in the non-Semitic languages of the Near East which may help to elucidate some phenomena in Semitic, e. g. the development of subordinate clauses in Sumerian (cf. A. P. Riffin).



tions which it seems necessary to introduce will be mentioned below.

There are certain features which are common to (or, at least, can be easily reconstructed in) the phonological systems of all Semito-Hamitic languages. Leaving the vowels aside for the time being, these features are the following.

(1). The existence of triple groups of consonants: a "voiced", an "emphatic", and a "voiceless" consonant.<sup>16</sup> The "emphatics" are partly lost in nearly all New Semito-Hamitic languages but, as far as I know, in no Semito-Hamitic language are the "emphatics" lost entirely. Even in Egyptian, where the loss of the principle of triplicity is a characteristic feature, there still is retained the consonant *q* alongside of *g* and *k*, although it is articulated deeper than the two latter.

(2). The existence of pharyngeal fricatives: (voiced) and *h* (voiceless). These are also lost in many New Semito-Hamitic languages but traces can be discovered in all branches.

(3). The existence of a glottal (or laryngeal) stop ' as a separate phoneme on a par with the glottal fricative *h*. This stop, too, disappears gradually, at least in some positions. However, due to its function as consonant (and consonants play a specific role in Semito-Hamitic), this phoneme shows a marvellous degree of stability.

(4). The stable functioning of non-syllabic *ɹ* and *ɿ* in the morphological role of consonants.

(5). The absence of affricates, or at least of primary affricates (but compare below on *z*—*ʃ*—*s*).

The phonological system of consonants appears in its most complete form in Ancient Semitic. It is reproduced below (the scheme is on purpose simplified to the utmost; bold types denote sonants, an asterisk denotes stops):

1. Labials:	<b>m</b>	<i>b</i> *	<i>p</i> (?)*	<i>p</i> *
2. Dentals:	<b>n</b>	<i>d</i> *	<i>t</i> *	<i>t</i> *
3. Dentals:	—	<i>z</i>	<i>ʃ</i>	<i>s</i>

<sup>16</sup> The "emphatic" consonant phonemes find various phonetic realizations: as pharyngealized voiceless consonants (this seems to be the case in most Semitic languages), or as pharyngealized voiced consonants (in Berbero-Libyan, partly in Arabic), or as voiceless consonants combined with a glottal stop (in the Abyssinian sub-group of Southern Peripheral Semitic, partly in Cushitic and Hausa), as inspiratory consonants (in Hausa, partly), as cerebral consonants (in Cushitic). All these articulations have obviously a common origin. The primary pronunciation of "emphatics" is probably the one with a glottal stop, the pronunciation as voiceless pharyngealized consonants being a somewhat later development. Below we will use the term "emphatic" in the sense of the third member of a series, the two others being a voiced and a non-voiced consonant.

4. Interdentals:	—	<i>d</i>	<i>t</i>	<i>t</i> <sup>17</sup>
5. Vibrants and bifocals:	—	<i>r</i>	<i>s</i>	<i>š</i>
6. Laterals (?):	—	<i>l</i>	<i>š</i>	<i>š</i>
7. Velars:	—	<i>g</i> *	<i>k</i> *	<i>k</i> * <sup>18</sup>
8. Uvulars:	—	<i>ɣ</i>	—	<i>ħ</i> <sup>19</sup>
9. Pharyngeals:	—	‘	—	<i>ħ</i> <sup>20</sup>
10. Lower pharyngeals (glottals) and laryngeals:	—	ʔ*	—	<i>h</i>
11. To this must be added the non-syllabic <i>u</i> and <i>i</i> .				

In explanation of the above table the following should be noted:

*To Series 1:* The existence of the phoneme \**p* is reconstructed without full conviction, on the ground of cases (albeit very rare ones) of a seeming or real irregularity of correspondences between *b* and *p* in Semitic (Arab. *buryūt-*, Hebr. *par’ōš* ‘flea’, etc.; not to be confused with cases of a transition *b* > *p* in some Northern Semitic languages due to a Hurrian substratum).<sup>21</sup> It seems that a *p* (= [p’] with a glottal stop) is practically found only in some of the Semitic and Cushitic languages of Ethiopia where it is thought to be due to an adstratum in Semitic but is possibly original in Cushitic.

The phoneme *p* is usually a fricative [f] in Southern Semitic, Berbero-Libyan and Cushitic.

*To Series 3:* In Northern Semitic languages the phoneme *š* was an affricate [tʃ]. (This is proved by the fact that in borrowings from Northern Semitic *š* is represented by an affricate in all neighbouring languages which had affricates).<sup>22</sup> It is not impossible that the whole series *z*—*š*—*s* were affricates, since in Egyptian they are represented in borrowed

<sup>17</sup> More correctly *ṣ*, *ṭ*, *ṭ*.

<sup>18</sup> Or *g*, *q*, *k*.

<sup>19</sup> More correctly *ḥ*, *χ*.

<sup>20</sup> *ħ* is the Arabic *ح*.

<sup>21</sup> In Cushitic also, besides the more regular preservation of, respectively, *b* and *f* through all groups of the branch, there are cases where there occurs an unstable *b* || *f*, e. g. Bed. *damba* ‘foot-sole’ ~ Agau *zanfi*, *šāfā*; Bed. *dōf* ‘a portion of meat’ ~ Saho-‘Afar *dūbō*; Bed. *šēfi* ‘to drink milk’ ~ Agau *šāb*, *šab*; Bed. *genūf* ‘nose’ ~ Agau *kūnbā*, Galla *humbi*. It is possible that these cases point to the existence of a third labial besides *b* and *p* || *f* in the prototype. Noteworthy here, too, is the word ‘flea’, Kaffiço *pill-ō*, Agau *peleyā* (Quara), *felā* (Chamir), *felūtā* (Bilin), possibly < \**pil’ūt-*, cf. Sem. \**paryūt-*?

<sup>22</sup> In Egyptian, Hittite, Hurrian, Urartean, Elamite, and Old Persian.

words by  $\check{d}$ — $\check{d}$ — $\check{t}$ <sup>23</sup> respectively, while the Akkadian cuneiform signs for syllables containing  $z$  and  $s$  were taken over by the Hurrians to express their affricates  $\check{c}$  and  $\check{c}$ .<sup>24</sup>

In the now living Semitic languages the phonemes  $z$ — $s$ — $s$  are usually fricatives corresponding to the stops  $d$ — $t$ — $t$ .

*To Series 5:* We have combined the phonemes  $r$ ,  $s$ , and  $\check{s}$  into one series purely conventionally, to simplify the scheme:  $\check{s}$  is not a voiceless  $r$ , although there is some evidence of their original affinity (see below). In Arabic Sem.  $*\check{s} > *s > s$ .

The articulation of  $s$  is quite uncertain: this phoneme has not been preserved in any of the historically known Semito-Hamitic languages, with the possible exception of the most ancient stage of Old Akkadian,<sup>25</sup> but the difference between its reflexes and the reflexes of  $s$ ,  $t$ ,  $\check{s}$  and  $\check{s}$  compels us to regard it as an originally separate phoneme.<sup>26</sup>

*To Series 6:* Some Semitologists are not convinced that the phonemes  $\check{s}$  and  $s$  are laterals, although their affinity with  $l$  seems to be established beyond reasonable doubt (see examples below).

In Middle and New Semitic  $\check{s}$  becomes  $s$  in Akkadian, Hebrew a. o.,  $\check{d}$  in most of the Arabic dialects,  $l$  in some southern Arabic and Southern Peripheral dialects, and  $\check{g}/\gamma > \gamma$  in Aramaic.

<sup>23</sup> Here and below we use the transcription  $\check{d}$ ,  $\check{t}$  for the traditional Egyptological transcription  $\check{d}$ ,  $\check{t}$  in order to avoid confusion with the interdentals, transcribed  $\check{d}$ ,  $\check{t}$  in the Semitological tradition. The Egyptian  $\check{d}$ ,  $\check{t}$  were probably palatalized  $d'$  and  $t'$  (or  $g'$  and  $k'$ ), at least originally.

We transcribe the  $s$  of the Egyptological transcription as  $z$ ; and the  $\check{s}$  as  $s$  in order to avoid confusion with the Semitological  $\check{s}$  which is used for the voiceless lateral;  $z$  and  $s$  seem to be the real original pronunciations of the sounds transcribed  $s$  and  $\check{s}$  by the Egyptologists.

<sup>24</sup> The data on these Hurrian affricates will be published in another paper.

<sup>25</sup> Although in Old Akkadian the sibilants  $t$ ,  $\check{s}$ , and  $s$ ,  $s$  have begun to coincide, it has been shown statistically that the signs which are conventionally transliterated as  $SA$ ,  $SE$ ,  $SI$  and  $SU$  are mostly used to express the etymological  $\check{s}$  or  $s$ , the signs  $SA$ ,  $SI$  and  $SU$ —to express  $t$ , and the signs  $\check{SA}$  (?),  $\check{SE}$  (?) and  $\check{SU}$ —to express  $s$ ; thus,  $-SU_4$  stands for  $-su$  'his, him', Arab.  $-h\ddot{u}$ , Eg.  $-f$ , Hausa  $*si$ , but  $-SA$  stands for  $-\check{s}\ddot{a}$  'her', Arab.  $-h\ddot{a}$  by analogy (?), Eg.  $-s$ , Hausa  $i$ -( $ta$ ). More or less regular are also the writings  $\check{I}-BA-\check{SE}$  for  $\check{i}ba(s)\check{s}\ddot{i}$  (?) 'is, exists', and, less frequently,  $NI-\check{SE}$  for  $n\ddot{i}s\ddot{i}$  (?) 'people'. See I. J. Gelb, *Old Akkadian Writing and Grammar*, 2nd ed., Chicago, 1961, pp. 34 ff. According to A. Goetze ("The Sibilants of Old Babylonian", *RAss.*, LII, 1958, fasc. 3, pp. 137 ff.), there was yet another sibilant in Proto-Semitic. The question is debatable, and will not be discussed here.

<sup>26</sup> Common Semito-Hamitic  $s > \text{Akk. } \check{s}[\check{s}]$ , Hebr.  $h$ , Aram.  $h > \check{s}$  (and  $\check{s}$ ), S. Periph.  $s$  or, in other dialects,  $h$ , Arab. ' and, in some positions,  $s$ , Berber apparently  $*h > \text{zero}$  and, in some positions,  $s$ ; Egyptian, Cushitic, and Tchad apparently  $s$  (but  $> h$  in some Bedawye dialects).

The phoneme *š* is represented by *š* in Akkadian (?)<sup>27</sup> and Arabic, by a voiceless *k* in some Southern Peripheral dialects, and apparently by *s* in the other Semito-Hamitic languages.<sup>28</sup>

*To Series 7:* The phoneme *k* is usually articulated deeper than *g* and *q*, nearly as deep as *ɣ* and *ħ*, being practically uvular; hence it is often transcribed *q*.

*To Series 8:* The primary character of the phoneme *ɣ* (more correctly *ħ*) is doubted by some scholars.

*To Series 10:* Functionally ' is completely analogous to the sonants *u* and *i*.

It must be noted that traces of a still older phonological stage can be observed. Possibly at this stage the sounds of one series were allophones. This can be seen from the existence of duplicate and triplicate roots of similar semantics, e. g.:

*š'k* Arab., Hebr. 'to shout, to make noise' || *z'k* the same.

*rd* Hebr. 'to repel, to subdue', Aram. 'to stamp flat', Arab. 'to repel', Akk. 'to pursue'; *rdl* Hebr. 'to tread; to dominate', Aram. 'to walk', 'to tread down', 'to subdue', Arab. 'to tread', Akk. 'to drive' || *šdd* Hebr. 'to devastate, to maltreat', Arab. 'to obstruct', 'to intrude', 'to devastate', 'to despoil', Eth. 'to oust', Akk. 'to pull'.

*rkb* Comm. Sem. 'to ride', 'to mount', Akk. 'to ride; to have sexual intercourse', Eth. 'to encounter' || *škb* Hebr., Aram., Eth. 'to lie down; to have sexual intercourse', Arab. 'to pour out'.

*rud* Hebr., Arab. 'to wander about', Eth. 'to attack' || *šut* Hebr., Aram. 'to wander', Akk. 'to drag'.

*lpt* Hebr. 'to embrace', Arab. 'to turn about', Akk. 'to touch, to beat' || *šbt* Comm. Sem. 'to grip, to hold'.

*šhk/k* Comm. Sem. 'to laugh' || *šhk* Hebr., Eth. the same.

*šā'* Comm. Sem. 'a goat or sheep'; Cush. Bed. *šā'*, Somali *sā'* 'ox, cow'; Hausa *sā'* 'bull', East Tchad *sū* 'meat' || *šā'n* Comm. Sem. 'goats and sheep' || *lā'-āt-*, Comm. Sem. '(wild) cow'; Cush. Agau *lay*, Saho *lā* 'cattle'; East Tchad *lā* 'cattle', West Tchad *lō* 'meat, animal'.

*mdd* || *mṭṭ* Comm. Sem. 'to draw out, to measure'.

*gdd* Comm. Sem. 'to incise, to cut in, or off' || *kṭṭ* Comm. Sem. 'to cut off', *kṭ/tl* Aram., Arab. 'to kill', *kṭ'* Arab. 'to cut off', 'to incise', a. o. (a very extensive root group).

*gzz* Comm. Sem. 'to cut off, to shear' || *ħṣṣ* Hebr. 'to scrape off', etc.

These examples can be multiplied at will.

<sup>27</sup> It is possible that Akk. *š* is really a [š] (beginning with the Middle Stage it develops into *l* before *t* etc.); in the Assyrian dialect it is later transformed into *s* (cf. the Arabic development \**š* > \**s* > *s*).

<sup>28</sup> In Egyptian \**š* possibly > *š*, but at least in some cases > *s*.

As the non-Semitic languages of the Semito-Hamitic family have usually been observed at the later stages only, it is to be expected that their phonological systems of consonants are either simplified or incomplete. They are listed in Table I.

It will be thus seen that the phonological systems of consonants are very similar in all Semito-Hamitic languages, and it seems possible to trace them back to a common system, greatly resembling the Ancient Semitic.

We can now proceed to the question of phonetic correspondences, insofar as they can be established at present (Table II).<sup>29</sup>

The correspondences between Semitic and Berbero-Libyan are fairly certain in their main features, thanks to the study of O. Rössler.<sup>30</sup> More dubious are some of the correspondences between Semitic and Egyptian, while in the case of Cushitic and Tchad we have as often as not to limit ourselves to a comparison of lexical and morphological elements consisting of acoustically similar phonemes, since the regularity of the correspondences cannot always be proved conclusively by a sufficient number of individual reflexes.

Typical of the Semito-Hamitic languages is the comparative scarcity of combinative and positional phonetic changes; more often the change concerns a consonant phoneme in any position<sup>31</sup>. This is due to the specific role of the consonants inside the root, of which more will be said below.

In some cases, however, more complicated combinative correspondences may be observed. Thus, the Berber sibilants *š*, *ž*, *h* seem originally to have been positional allophones of *s*, *z* (*h* also of *bʔ*).

Complicated enough are the positional changes in Egyptian. Thus it seems that Eg. *f* (at least in some cases) and the palatalized *ḏ*, *ṯ*, *ḥ* have a positional origin;<sup>32</sup> Sem. *l* usu-

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<sup>29</sup> Late combinative and positional changes, particularly in Cushitic (e. g. *g* > *ḡ*, *h* > zero in Bedawye, etc.) have not been noted in the Table.

<sup>30</sup> O. Rössler, *Der semitische Charakter der libyschen Sprache*. ZA NF 16 (50), 1952.

<sup>31</sup> It is mostly either a case of two neighbouring series coinciding, or of two single phonemes of two neighbouring series coinciding; sometimes it is a case of the same phoneme being variously realized phonetically. Thus in Berbero-Libyan the Series (8-10) are represented by zero in all positions, *š* and *s* have coincided, and *ž* as well as, probably, *ḏ* have coincided with *t*. In Classical Arabic *g* is phonetically realized as *ḡ*, and *š* as *ṣ*, a. s. o.

<sup>32</sup> Probably due to palatalization, Eg. *ḏ* has developed from *\*g*; Eg. *ṯ* from *\*k*; Eg. *ḥ* (sometimes written *š* in the earliest texts and presumably pronounced [ṣ]) from *\*h*, and possibly also from *\*ḥ*; Eg. *ḏ* seems also to correspond to Sem. *š*, *ṯ*; Eg. *f* seems to be a development

Table 1

## Phonology of Semito-Hamitic Languages

Semitic (Ancient)	Common Berbero-Libyan (New)	Egyptian (Ancient and Middle)	Cushitic (New)		Tchad (New) (Hausa)
			Bedawye	Somali	
1) <i>m b p?</i> <i>p/f</i> {	<i>m b</i> — <i>f</i>	<i>m b</i> — <i>p</i>	<i>m b</i> — <i>f</i>	<i>m b</i> — <i>f</i>	<i>m b</i> <i>ɓ</i> <i>p/f/h</i>
2) <i>n d t</i> {	<i>n d</i> <i>d</i> <i>t</i>	<i>n d</i> — <i>t</i>	<i>n d</i> <i>d</i> <i>t</i>	<i>n d</i> <i>d</i> <i>t</i>	<i>n d</i> <i>d</i> <i>t</i>
2a) {	(but <i>dd</i> <i>tt</i> <i>tt</i> )	<i>ḏ</i> — <i>ṯ</i>	<i>ḏ</i>		<i>ḏ</i> <i>ṯ</i>
3) — <i>z ṣ s</i>	— <i>z ṣ s</i>	— <i>z</i> — <i>s</i>	— — <i>s</i>	— — <i>s</i>	— <i>z</i> <i>c'</i> <i>s</i>
4) — <i>d t</i> {	— — —	— — —	— — —	— — —	— — —
5) — <i>r ṣ š</i>	— <i>r</i> — <i>š</i>	— <i>r</i> — <i>š</i>	— <i>r</i> <i>ṣ</i> —	— <i>r</i> — <i>š</i>	— <i>r</i> <i>ṣ</i> — <i>š</i>
6) — <i>l ṣ s</i>	— <i>l</i> — <i>s</i>	— <i>l?</i> — <i>k</i>	— <i>l</i> — <i>k</i>	— <i>l</i> — <i>k</i>	— <i>l</i> — <i>k</i>
7) — <i>g ḳ k</i>	— <i>g</i> — <i>k</i>	— <i>g</i> <i>k</i> <i>k</i>	— <i>g</i> — <i>k</i>	— <i>g</i> <i>k</i> <i>k</i>	— <i>g</i> <i>k'</i> <i>k</i>
			— <i>g<sup>w</sup></i> — <i>k<sup>w</sup></i>	— <i>g<sup>w</sup></i> <i>k<sup>w</sup></i> <i>k<sup>w</sup></i>	— <i>g<sup>w</sup></i> <i>k<sup>w</sup></i> <i>k<sup>w</sup></i>
8) — <i>γ</i> — <i>ḳ</i>	— <i>γ</i> — <i>ḳ</i> (but <i>kḳ</i> )	— — — <i>ḳ</i>	— — —	— — —	— <i>ḳ</i> <i>k'</i> <i>k'</i>
9) — <i>ḡ</i> — <i>ḳ</i>	— — —	(palatalized?)	— — —	— <i>ḡ</i> — <i>ḳ</i>	— — —
10) — <i>ḡ</i> — <i>ḳ</i>	— [ <i>ʔ</i> ] — <i>ḳ</i> (secondary)	— <i>ḡ</i> — <i>ḳ</i>	— — <i>ḳ</i>	— — <i>ḳ</i>	— — <i>ḳ</i>
11) <i>u, i</i>	<i>u, i</i>	<i>u(w), i(y), [i]</i>	<i>u, i</i>	<i>u, i</i>	<i>u, i</i> (secondary)

ally corresponds to a phoneme expressed in Egyptian writing as *r* or *n* (probably a retroflex [r/ɭ]?) but in some cases (before *i* and *u*?) it corresponds to *i*; <sup>33</sup> Sem. *r* corresponds usually to *r* but in Iulaut to *ʾ*. Quite uncertain is the fate of the dental "emphatic" sibilants in Egyptian (probably > *ḏ* in some cases?). The voiceless sibilants probably > *s* <sup>34</sup>; the emphatic \**ṭ* > \**ṭ* > *d*.

Thus, even between Semitic, on one hand, and Egyptian and Berbero-Libyan, on the other, many problems of phonetic correspondences are unsolved. The correspondences between these branches and Cushitic and Tchad are still less clear. In any case, it is improbable that the branches of Semito-Hamitic can be grouped according to certain phonetic changes typical of one group as contrasted to the others, as has been done in the case of Indo-European languages. <sup>35</sup> Some notions of the existing correspondences may be gleaned from Table II, although its data are highly debatable whenever they do not concern the Semitic languages proper.

Fortunately, the grammatical morphemes in Semito-Hamitic are mostly made up of those consonants which undergo the least or the most obvious changes. Thus, the "emphatics" and the consonants of the Series (8-10) are not made use of at all. This enables us to make historical comparisons with a certain degree of rigour at least in the case of morphological elements.

The phonological system of vowels will be briefly dealt with in the next chapter. According to rules common to Semito-Hamitic, <sup>36</sup> not excepting the Tchad languages, no syllable

partly of \**p* and partly of \**su*, possibly also through palatalization. Later Eg. *ḏ* > *d* > *t*; *ṭ* > *t*; *ḥ* > *ṣ*; *z* > *s*.

<sup>33</sup> The symbol *i* is used for the phonemes *ʾ* and *ṭ* in cases where their representation in writing is ambiguous; it is mostly a *ṭ*.

<sup>34</sup> As has been mentioned before, it is possible that Sem. *ṣ* > Eg. *ṣ* (and *s*, depending on position?); the origin of the Egyptian phoneme *ṣ* is obscure. It seems to us that the correspondence Sem. *s* ~ Eg. *ṭ* is observed only in words borrowed from Semitic.

<sup>35</sup> The voiced articulation of all "emphatics" or a part of them might seem to be typical of all African Semito-Hamitic languages as contrasted to Semitic; but this phenomenon occurs also in Arabic (\**t* > *ḏ*, *z*; *ṣ* > *d*). On the other hand, the reduplicated (long) "emphatic" stops are preserved as voiceless in Berber (\**t* > *d*, \**ḥ* > *ṣ* but *tt*, *ḥḥ*). In all branches with the exception of Semitic there is a transition *s* > *s* but an analogous phenomenon occurs also in some Southern Peripheral Semitic languages and partly in Arabic (\**ṣ* > *h*, *ʾ* but *-st-* > *-st-*). Other Semitic languages (with the exception of Akkadian where \**ṣ* > *ṣ*) have \**ṣ* > *h* but this phenomenon seems also to have occurred in Middle Berber, a. s. o.

<sup>36</sup> Some modifications of these rules occur only in certain New stage languages.





Table 11 (continued)

Consonants	Semitic						Cushitic			Tehad (Hansa)
	Akkadian Ancient Stage	Hebrew Middle Stage	Aramaic Middle Stage	Arabic Ancient Stage	South Peripheral Ancient Stage	Common Berber	Egyptian	Bedawye	Somali	Agau
r s ʃ	r s ʃ	r h ʃ	r h, ʃ ʃ	r ʃ, h ʃ	r h (< ʃ), s ʃ (< s)	r zero; s ʃ; ʃ?	r; ʃ s ʃ; (ʃ in loanwords?)	r? (also n, l?) s (dial. h) s (in certain cases > ʃ?)	r? (also n, l?) s; zero s?	r/l s s; ʃ?
l ʃ ʃ	l ʃ ʃ	l ʃ ʃ	l ʃ ʃ	l ʃ ʃ	l ʃ (< ʃ) ʃ (< ʃ)	l d? ʃ s	l? ʃ; ʃ/ʃ t (and d?) ʃ (and s?)	l? (also n, r?) d? s?	l/r ʃ ʃ	l ʃ? ʃ? l? or s?
g k ʃ	g k ʃ	g k ʃ	g k ʃ	g k ʃ	g k ʃ	g ʃ/k k; ʃ?	g; ʃ <sup>11</sup> k k; ʃ <sup>11</sup>	g g or k? k	g k? or g? k	g, g <sup>w</sup> , ʃ, ʃ <sup>w</sup> , k, k <sup>w</sup> , k, k <sup>w</sup> , ʃ
ʃ ʃ ʃ	ʃ; zero <sup>12</sup> ʃ	ʃ ʃ ʃ	ʃ ʃ ʃ	ʃ ʃ ʃ	ʃ (< ʃ) (, ʃ)	zero <sup>13</sup> zero	ʃ ʃ; ʃ?	ʃ h?	ʃ? h?	ʃ ʃ



can begin (a) with a vowel, or (b) with two consonants. Neither can a syllable end in two consonants.

In most Semito-Hamitic languages a strong expiratory stress seems to have been usual (it was weaker only in Arabic). In Hausa there are tones, a feature which is hardly archaic and probably due to a substratum.

## ROOT STRUCTURE

All classical manuals of Semitology state that the Semitic root, as contrasted to the root in other linguistic families, consists of consonants only, usually of three consonants, while the vowels, as well as certain consonantal affixes, either serve to define the meaning of the root more precisely, or express grammatical categories.

However, this generalization is not unconditionally correct. It is only in Arabic (which, in spite of the preservation of a very archaic phonological system, is in many other respects more developed historically) that the internal vocalic inflection actually pervades the entire vocabulary. In Akkadian with its more ancient structure, and less consistently so, in the other Northern Semitic languages, one easily discerns two groups of roots. Here, too, verbs and verbal nouns<sup>36a</sup> are saturated with the internal vocalic inflection to such a degree that no original root-vowel can be established, and the root has to be fixed as consisting of consonants alone. But the nouns which are not connected with the verb have a constant vocalism, and there is no reason why we should not in this case regard the vowel as belonging to the root. This identical root-vowel is, as a rule, preserved in the other Semitic languages as well;<sup>37</sup> and in many instances it can be traced also in the other Semito-Hamitic languages. There do exist some exceptions but in most cases they can be explained by positional conditions or by the history of the individual languages.<sup>38</sup>

Thus, the phenomenon of labialization of 'i', rare in historical times, seems to have been very productive at

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<sup>36a</sup> This applies also to the not very numerous denominative verbs.

<sup>37</sup> In the case of this category of nouns, non-correspondence of the vowel to the Common Semitic type and variants in vocalism occur in Arabic more often than in the other Semitic languages.

<sup>38</sup> Other exceptions do occur, especially in Arabic where the internal vocalic inflection has encroached upon the domain of the primary nouns, but the occurrence of such exceptions in individual languages, as opposed to the regular usage in all the others, only proves their late date. In most cases they can be explained by the history of the indi-

the earliest stage of Semitic, so that practically all roots with an 'i' where a labial consonant is present are also to be found with an 'u' in some of the Semitic languages, as in 'imm- || 'umm- 'mother', bin- || bun- (Amor.) 'son', bi'r- || bu'r- 'well', libb- || lub(a)b- 'heart', šim- || šum- 'name' etc. The vowel 'u' seems never to be original. Sometimes a labialization seems to have occurred in the presence of *g* (\**g<sup>w</sup>*?).

The group of primary nominal roots includes the roots of such words as 'ab- 'father', 'aḥ- 'brother', ḥam- 'father-in-law', iad- 'hand', 'arm', mā'- 'water', 'il- 'god', mut- 'man', bāb- 'door', bait- 'house', ḥakl- 'field', iaym- 'day', kalb- 'dog', as well as of numerals and pronouns. The words of this group have a constant vocalism, and there is no doubt that their vowel is part of the root. Even in Arabic—although in the formation of verbs from nominal roots and of the so-called *Pluralis fractus* the nouns of this group are also treated as having a purely consonantal root—there is usually no doubt as to the quality of the original root-vowel.

The nominal roots of this group have certain patterns of their own. Symbolizing the consonants *l, m, n, r, ' , i, u* as S(onants), all consonants, including S, as C, and vowels as V, we can formulate the possible combinations of phonemes in a primary nominal root as:

- (1) C<sub>1</sub>aS
- (2) C<sub>1</sub>VC<sub>2</sub> (C<sub>2</sub> being a consonant other than S)
- (3) C<sub>1</sub>aSC<sub>2</sub>
- (4) C<sub>1</sub>VC<sub>2</sub>S
- (5) C<sub>1</sub>VC<sub>2</sub>C<sub>2</sub> (= C<sub>1</sub>VĀC<sub>2</sub>).

There are no other possibilities.<sup>39</sup> Contrary to the case of the nouns of verbal origin, the pattern of a primary nominal root has no bearing on its semantics.

The classical Semitic phonological system knows only three short vowel phonemes, *a, i, u*, and three long ones, *ā, ī, ū*,

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vidual languages. Thus, Aram. *šimš-ā* 'sun', *ri'š-ā* 'head' do not contradict the original forms \**šamš-*, \**ra'š-* because the former vocalism reflects an Aramaic innovation: alternation of *i* || *a* and *a* || *i* in a certain group of nouns and the subsequent formation of new forms by analogy.

Rare instances of roots with an unstable vowel probably reflect root variants in the prototype, a phenomenon well known in Indo-European, which does not indicate that the vowel is not part of the root.

<sup>39</sup> Thus, there can be no primary nominal root ending in two different consonants unless one of the latter is a sonant. Neither can the root begin with a vowel or end with a vowel but it can begin or end with a sonant or any single consonant. It can also end with a double consonant.

and  $\bar{u}$ .<sup>40</sup> It has been suggested that these phonemes are not original,  $a$  and  $i$  being the reflex of a neutral vowel of one articulative quality but of different pitch ( $\bar{a}$ ,  $\bar{i}$ ), and  $u$  being a labialization of the high-pitch vowel. In fact,  $u$  is rarely met with in primary nouns unless in combination with a labial.<sup>41</sup> The above rule of root formation, however, seems to indicate that along with  $*\bar{a}$  and  $*\bar{i}$  Semito-Hamitic originally also had sonants functioning both as vowels and as consonants. The combination  $aS$  would then reflect an original sonant functioning as vowel.<sup>42</sup> The patterns of the nominal roots can thus be simplified into the following scheme (symbolizing as  $V$  either a vowel proper, i. e.,  $*\bar{a}$  or  $*\bar{i}$ , or a vowel sonant, i. e.,  $*\bar{l}$ ,  $*\bar{m}$ ,  $*\bar{y}$ ,  $*\bar{r}$ ,  $*\bar{a}_g$ ,  $*\bar{i}_g$ ,  $*\bar{u}$ ):

- (1)  $C_1V$
- (2)  $C_1VC_2$
- (3)  $C_1V\bar{C}_2$  ( $V$  being only  $*\bar{a}$  or  $*\bar{i}$ )
- (4)  $C_1V_1C_2V_2$  ( $V_2$  being a sonant)

The final sonant functions as consonant. Therefore a root cannot end in  $*\bar{a} > a$ , or in  $*\bar{i} > i, u$ . In type (1) the sonants  $\bar{i}$ ,  $\bar{y}$  are not represented either. The half-consonantal value of all the sonants except the "pure vowels"  $*\bar{a}$  and  $*\bar{i}$  is the reason why only the latter two may appear as the vocalic component in type (3).

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There is one root consisting of one consonant only, namely  $p$ - 'mouth' but it is usually augmented to  $f-am-$ ,  $p-umm-$ , etc.

There is in Semitic also a number of primary nominal roots of two syllables; here, too, the last consonant is invariably an  $S$ :  $gam(m)\bar{a}l$ - 'camel',  $bat\bar{u}l$ - 'virgin boy',  $ih\bar{a}m$ - 'sea, sea-coast',  $'at\bar{a}n$ - 'she-ass',  $hi/am\bar{a}r$ - 'ass' etc. It is possible that  $\bar{a}/\bar{u}l$ -,  $\bar{a}m$ -,  $\bar{a}n$ -,  $\bar{a}r$  are old morphemes not belonging to the root. This is certain in the case of  $li/a\bar{s}\bar{a}n$ - 'tongue', cf. Eg.  $ns$  (read [lasj?]), Berb.  $i-ls$ , East. Tchad  $lis(i)$ , and very probable in the case of  $gam(m)\bar{a}l$ - and  $hi/am\bar{a}r$ - (see below). The instability of the first vowel in  $li/a\bar{s}\bar{a}n$ - and  $hi/am\bar{a}r$ - is probably due to ancient stress conditions.

<sup>40</sup> The same vowel system can be reconstructed for Egyptian and for Berbero-Libyan: Berb.  $a < *\bar{a}$ ,  $i < *\bar{i}$ ,  $u < *\bar{u}$ ,  $\bar{a} < *a$ ,  $*i$ ,  $*u$ ; in certain cases the old  $a$ ,  $i$ ,  $u$  are preserved. Berb.  $\bar{a}$  can also be etymologically identical with zero vowel, appearing only in order to break up a cluster of consonants; therefore the position of  $\bar{a}$  in the word is not quite stable, cf. the Imperative  $\gamma d\bar{a}m$  (or  $\bar{a}\gamma d\bar{a}m$ ) 'labour!' but  $k\bar{a}r\bar{z}$  'work!' (in the latter case there is a metathesis under the influence of the liquid); cf. also  $n\bar{a}-k\bar{r}\bar{z}$  'we work' but  $k\bar{a}r\bar{z}-\bar{a}\gamma$  'I work'. On the other hand the zero vowel may in some cases also reflect  $*a$ ,  $*i$ ,  $*u$ . It seems probable that all Semito-Hamitic languages have gone through the six-vowel stage ( $a$ ,  $i$ ,  $u$ ;  $\bar{a}$ ,  $\bar{i}$ ,  $\bar{u}$ ).

<sup>41</sup>  $'udn$ - 'ear', and  $gul-gul-i$ - 'cranium' are two of the very few exceptions.

<sup>42</sup> This would account for the vowels  $i$  and  $u$  never being encountered in primary nominal roots before  $S$ (onant).

The above rule can be illustrated as follows:

Type (1): C<sub>1</sub>: *dal-t-* 'door-fold'; C<sub>m</sub>: *dam-* 'blood',<sup>43</sup> *ham-* 'father-in-law'; C<sub>n</sub>: *\*šan-t-* 'year'; C<sub>a</sub>: *sā-* 'goat or sheep', *mā-* 'water'.<sup>43</sup>

Type (2): C<sub>1</sub>əC<sub>2</sub>: *iad-* 'hand', 'arm', *\*kab-kab-* 'star'; C<sub>1</sub>əC<sub>2</sub>: *'il-* 'god', *b(i)n-* 'son', *gul-gul-t* 'cranium', *mut-* 'man', *\*niš-* 'people', *ši/um-* 'name', *t(i)n-* 'two';<sup>44</sup> C<sub>1</sub>lC<sub>2</sub>: *šal-* 'rib'; C<sub>1</sub>mC<sub>2</sub>: *\*samš-* 'sun'; C<sub>1</sub>rC<sub>2</sub>: *'arš-* 'earth', *karb-* 'intestines', *mar-* 'son' (Akk.), 'lord' (Aram.); C<sub>1</sub>aC<sub>2</sub>: *ka's-* 'cup', *ra's-* 'head', *\*ša'n-* 'goats and sheep';<sup>45</sup> C<sub>1</sub>lC<sub>2</sub>: *balt-* 'house', *laīt-* (also *\*naīt-*) 'lion', *'ain-* 'eye'; C<sub>1</sub>uC<sub>2</sub>: *iaum-* 'day', *kaul-* 'voice'.

Type (3): C<sub>1</sub>əC<sub>2</sub>: *'ab-* 'father', *'ah-* 'brother',<sup>46</sup> *baḳḳ-* 'gnat', *kall-āt-* 'bride', *sarr-* 'chief'; C<sub>1</sub>əC<sub>2</sub>: *'imm-* 'mother', *libb-* 'heart', *'iṣ-* 'tree, logwood'.

Type (4): C<sub>1</sub>əC<sub>2</sub>l: *'ahl-* 'tent, family' (also *'uhl-*); C<sub>1</sub>əC<sub>2</sub>l: *rigl-* 'leg' (also *ragl-*); C<sub>1</sub>əC<sub>2</sub>m: *ri'm-* 'wild bull'; C<sub>1</sub>əC<sub>2</sub>n: *'udn-* 'ear'; C<sub>1</sub>əC<sub>2</sub>r: *bi'r-* 'well', *kibr-* 'bank'.<sup>47</sup>

The second major root group consists of verbal roots; to this group belongs a vast number of various verbal and sec-

<sup>43</sup> *mā-* and Akk. Ass. dialect *dām-* are probably late developments.

<sup>44</sup> Cf. also *dī'-b-* 'wolf' where *-b* is a separate morpheme. Also *lab-b-* 'lion' (C<sub>1</sub>əC<sub>2</sub>), *dub-b-* 'bear' (C<sub>1</sub>əC<sub>2</sub>), *ta'l-ab-* 'fox' (C<sub>1</sub>əC<sub>2</sub>l). The roots *kīs-* 'purse' and *tūm-* 'garlic' are Common Semitic but the original form probably was *\*kīs-*, *\*tūm-*. This lengthening of the primary vowel is paralleled by the phenomenon of augmentation, as in *'il-* || *'il-āh-* 'god'. The cause of such changes seems to be that when most of the roots became either triconsonantal or biconsonantal with a lengthened vowel (see below), roots like *dam-*, *'il-*, *kīs-*, *tūm-* were felt as incomplete. The frequent contraction of *\*bin-*, *\*niš*, *\*tin-* to *bn-*, *\*ns/š-* (hence *\*naš-* etc.), *tn-* is probably due to an "Allegro-Pronunciation".

<sup>45</sup> *bāb-* 'door' is probably < *\*ba'-ba* < *\*baḳ-ba*, because a *\*bāb-* would be reflected as *\*bab-*, and a *\*baḳb-*, as *\*ba'b-*. Cf. the verbal Common Semito-Hamitic root *\*bā'-* 'to enter'.

<sup>46</sup> The roots *'ab-*, *'ah-*, and *'iṣ-* could also be regarded as belonging to class (2): C<sub>1</sub>əC<sub>2</sub>, C<sub>1</sub>əC<sub>2</sub>. In Akkadian they are *'ab-*, *'ah-*, *\*iṣ-* in the Singular but *'abb-*, *'ahh-*, *\*iṣṣ-* in the Plural. This might be the result of analogy with triconsonantal roots but compare *'abb-* also in Berbero-Libyan and Cushitic.

<sup>47</sup> It is noteworthy that roots of this class (4) sometimes have unstable vowels: *'ahl-* || *'uhl-*, *rigl-* || *ragl-*. The vocalism of *'udn-* is also suspicious but the Eg. *idn* might represent *\*'udn-* and so need not be an evidence of alternation in the vocalism. Cf. also the unstable vowel in the bisyllabic roots *hi/amār-* and *li/ašān-*. Possibly the cause lies in the final syllable (or the final sonant) which might originally have been stressed, so that the first vowel had a neutral pitch. In the case of *lišān-* the vowel *i* seems to be original but the Hebr. *\*laš-ān-* is supported by the Eg. *ns* which should represent *\*las* and not *\*lis*, since *\*lis* would result in *\*is*.

There is a small remainder of nominal roots which do not fall into the above pattern, as *\*piri-* 'fruit', *\*birk-* || *\*burk-* 'knee', Akk. *'iṣd-*, Hebr.

ondary nominal stems which constitute the majority in the Semitic vocabulary. In the historical period these roots, as far as it concerns the Semitic languages, consist, as a rule, of three consonants, while all the vowels are entirely variable. In other words, the vocalism is an element of the stem, not of the root, or it appears as an internal vocalic inflection.

Triconsonantal roots are predominant not only in Semitic but also in Egyptian and in Berbero-Libyan; a part of the biconsonantal (and even uniconsonantal) roots existing in the latter languages can be historically traced back to primary triconsonantal ones. This is the result of the loss of the "unstable", or "infir", consonants, ' , *l*, and *u*, and, in Berber, also of the loss of the consonants of the Series (8-10). Apart from these, in Egyptian and in Berbero-Libyan there exists a number of biconsonantal roots<sup>48</sup> corresponding to the so-called Semitic "empty" roots (*mediae infirmae*), i. e., such roots where the second radical is regarded as being one of the "unstable" consonants ' , *l*, or *u*.

Earlier it was assumed that in Semitic there are no real biconsonantal verbal roots. This, however, is not strictly true. Because the formation of verbal grammatical categories means here a rigid distribution of a given number of certain vowels of the internal inflection according to set patterns, and the mutual position of the vowel and the consonants is conditioned by the pattern, the forms derived from biconsonantal roots have to be treated after the pattern of the more frequent triconsonantal ones. Such roots (the *mediae* and *tertia infirmae*) are regarded as containing the "unstable" consonants ' , *u*, or *l* if they have, respectively, an *a*, *u*, or *i* in the main finite form.<sup>49</sup> These roots constitute a very consider-

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\*'ašd- 'sole, foundation'. These are probably of verbal origin (certainly so in the case of *kasp*- 'silver', from the verbal root \**ksp* 'to break up into crumbles').

<sup>48</sup> Also quadruconsonantal and quinqueconsonantal roots. These, however, are in most cases derived from old root-reduplications and root-compositions. The quadruconsonantal roots contain, in these languages as well as in Semitic, either a lexicalized inflexional element, or a sonant (*l*, *m*, *n*, *r*, ' , *l*, *u*).

<sup>49</sup> For instance, the form \**ia-prus* 'he has divided' is derived from the root \**prs*, the form \**ia-lmad* 'he has learned' — from \**lmd*, and the form \**ia-šdih* 'he marched' — from \**šdh*, and by analogy the form \**ia-mnū* 'he has counted' is derived from \**mnū*, the form \**ia-bnī* 'he built' — from \**bnī*, the form \**ii-bāš* 'he was shamed' — from \**b'š*, the form \**ii-mūt* 'he died' — from \**mūt*, and the form \**ia-šīm* 'he decided' — from \**šim*. But it is admissible to regard the difference between \**ia-mnū* and \**ia-bnī*, or between \**ii-bāš*, \**ii-mūt*, and \**ia-šīm* on the same plane as the difference between \**ia-prus*, \**ia-lmad*, and \**ia-šdih*, and

able percentage among the Semitic verbal roots. In individual Semitic languages there appear, as the result of the so-called "Systemzwang", some forms where the *'*, *l*, and *u* are really present, though not always the "unstable" consonant (often just a glide) is the one which is supposed to be part of the root. In some cases a complete imitation of the triconsonantal scheme develops. Still, the data of Ancient Semitic seem to indicate that all such roots originally consisted of two consonants and a vowel. Compare, e. g., the inflexional pattern of a triconsonantal verb in Akkadian with the inflexion of a biconsonantal one:

	$\sqrt{prs}$	$\sqrt{k\bar{u}n}$ ("k $\bar{u}n$ ")	$\sqrt{b\bar{n}l}$ ("b $\bar{n}l$ ")
Imperfective	<i>iparras</i>	<i>iku'an</i>	<i>ibannī</i>
Perfective	<i>iprus</i>	<i>ikūn</i>	<i>ibnī</i>
Imperative	<i>purus</i>	<i>kūn</i>	<i>binī</i>
Nomen Actionis	<i>parās-</i>	<i>ku'ān-</i>	<i>banā'-</i>
Participle of Action	<i>pāris-</i>	<i>kā'in-</i>	<i>bānī'-</i>
Participle of State	<i>paris-</i>	<i>kīn-</i>	<i>bani-<sup>50</sup></i>

The appearance of *'* instead of *\*u* and *\*l* in the verbal nouns cannot be explained by the supposition that the roots in question are triconsonantal (*\*kūn*, *\*bnl*), and that the consonants *\*u* and *\*l* had once really existed, because in this case the forms would be *\*kaūān-*, *\*kāūin*, *\*banāī-* etc. A transition *\*u* > *'*, *\*l* > *'* has no analogy in other occurrences in a similar position, so that here the phoneme *'* must have appeared under the influence of "Systemzwang", and in imitation of the triconsonantal scheme. On the other hand, the preservation of the vowels *u* and *i* in several of the forms shows that they were felt as part of the root, since they are not conditioned by the internal vocalic inflexional pattern.

However, in Semitic languages verbs do occur where *'*, *l* and *u* appear as real consonants in all or most of the forms. But even in this case it is typical that any verb with one of these consonants as middle or last radical may occur as a "regular" triconsonantal in one Semito-Hamitic language,<sup>51</sup>

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not necessarily explain it by the loss of an "unstable" consonant. The vowel in the "infirm" roots (*\*mūt*, *\*bnl*, etc.) cannot be original, and its length is in itself already a result of "compensative" lengthening in order to conform with the triconsonantal roots. The original form of the roots in question should probably be reconstructed as *\*mōt*, (or *\*mut*), *\*bānī*, etc. (type  $C_1VC_2$  or  $C_1SC_2$ , and  $C_1VC_2S$ ). Note the great number of triconsonantal verbal roots of the type  $C_1SC_2$  and  $C_1C_2S$  where *S* is *l*, *m*, *n*, or *r*).

<sup>50</sup> Cf. the Hebrew Perfect *\*kām* < *\*kama* from a supposed root *\*kūm*; the "legitimate" form from this root would be *\*kōm* < *\*kāma* < *\*kaṣama*.

<sup>51</sup> Thus, the verbs *tertia infirmae* have mostly "regular" forms in Arabic.



and as a verb *mediae* or *tertia infirmæ* (like \**kūn* or \**bnī* quoted above) in another. Thus, Hebr., Eth. \**ṣuḥ* 'to shout, to shriek' is a "regular" verb, but Akk., Arab., Ugar. \**ṣiḥ* is a *verbum mediae infirmæ*; the Comm. Sem. \**mūt* 'to die' is a *verbum mediae infirmæ* but the Egyptian \**mwt* (although usually written *mt*) is, according to some Egyptologists, "regular". This shows that the remodelling of biconsonantal roots after the pattern of the triconsonantal ones is a secondary phenomenon.

Some phonetically and semantically inexplicable cases of an irregular vocalism of triconsonantal verbal forms diverging from the pattern may also be evidence of the existence at the earliest stage of Semito-Hamitic of a vowel inherent in the verbal root. (Thus, a transitive verb in the Old Perfective ought to have a vocalism of the type \**ia-prus* while in some cases we find a vocalism of the type \**ia-lmqd*.)<sup>52</sup>

The variable character of the vocalism of the stem in Semitic is the cause of the stability of the consonantal system and of the rarity of combinative changes. If, in fact, a combination like \**ga* would be preserved as \**ga* but \**gi* would pass to, say, \**ji*, and \**gu* to, say, \**wu*, then the various forms derived from a root containing \**g* would evade mental association, and would not be construed as a system, so that the structure of the grammatical and word-formative patterns would be destroyed. This is why such changes, due to position only, are not as a rule encountered in Ancient and Middle Semitic,<sup>53</sup> in other words, as long as the Common Semitic lexico-grammatical structure was being preserved. Thus, in Arabic, *g > j*, but this happens in *all* positions. The spirantization of the stops in northern Middle Semitic languages was originally also a general phenomenon; and if in Hebrew it occurs only after vowels, still the pairs *b/b̄* (or *v*), *g/ḡ* (or *γ*), *d/d̄* (or *ḏ*), *k/k̄* (or *χ*), *p/p̄* (or *f*), *t/t̄* (or *ṯ*, *s*) do not present two phonemes each; from the phonological point of view there exist only the phonemes *b*, *g*, *d*, *k*, *p*, *t*, while the sounds *v*, *γ*, *ḏ*, *χ*, *f*, *ṯ* (*s*) are allophonic variants of pronunciation.

For a reconstruction of the original type of the Semito-Hamitic root the combinative changes occurring in Egyptian are of considerable interest. Some of them—those in the nominal and pronominal roots—are nothing out of the common (e. g., Sem. *rhṣ* 'to wash' ~ Eg. *rhṯ* but Sem. *karm-* 'vineyard' ~

<sup>52</sup> However some scholars (J. Kuryłowicz) treat this form as medial, which perhaps is a more plausible explanation.

<sup>53</sup> There are very few exceptions, as e. g. the assimilation of *n* by the following consonant, and the various changes due to the dropping of the "unstable" consonants *ʾ*, *i*, and *u*, a phenomenon which, as we have seen, is partly a seeming one.

Eg. *k'm*, Sem. *karb-* 'intestines' ~ Eg. *k'b*; or Sem. *li/aš-ān-* 'tongue' ~ Eg. *ns* (\**las*) but Sem. *libb-* 'heart' ~ Eg. *ib* (\**iibb-* or *iubb-*?); or Sem. *-ka* 'thine' (Masc.) ~ Eg. *-k* but Sem. *-ki* 'thine' (Fem.) ~ Eg. *-ī*). However, sometimes in the verbal roots, too, one Semitic consonantal phoneme has two correspondences in Egyptian (e. g., Sem. \**ḥsb* 'to count' ~ Eg. *ḥsb* but Sem. \**ḥmm* 'to be hot' ~ Eg. *ḥmm*). This phenomenon cannot so easily be explained away. It means, in fact, either that the Semitic phoneme *ḥ* represents two Common Semito-Hamitic phonemes corresponding in Egyptian to *ḥ* and *ḥ* respectively and in Semitic coinciding in *ḥ*, or that a Common Semito-Hamitic *ḥ* corresponds in Egyptian to *ḥ* or *ḥ* depending upon position. The former alternative does not appear to be supported by the evidence of the other branches of Semito-Hamitic where no traces of a supposed separate Common Semito-Hamitic phoneme \**ḥ* occur. On the other hand, in order to suppose that the difference between *ḥ* and *ḥ* in Egyptian *ḥsb* and *ḥmm* is due to position, we must assume that at a certain stage there was in Egyptian (as is still the case in Hausa) no change in the vocalization of the first syllable of the verb from one form to another, so that, e. g., there was a stable *a* after *ḥ* in all forms of the verb *ḥsb*, and, say, a stable *i* in all forms of the verb \**ḥmm* > *ḥmm*. This is apparently another evidence in favour of the supposition that the Semito-Hamitic verbal root originally contained a vowel as well as consonants.

Most Semitic verbs have, as has been mentioned, three consonants in the root. However, only two of them seem to be the main bearers of the meaning. This is attested by the existence of alternating roots with one changing radical consonant (usually the first or the third one), and also by the existence of semantically proximate roots with two identical and one alternating radical consonants (e. g., Akk. *ṣabāl-* 'to bring'; *zabāl-* 'to carry', *nabāl-* 'to pull down', *tabāl-* 'to bring'; cf. such forms of the verb *ṣabāl-* as *bil* 'bring!', *bil-t-* 'the bringing', 'the tribute'; or Arab. *qaṭa'a* 'he cut off', *qat(a)ṭa* 'he cut through', *qatala* < \**qaṭala* 'he killed'; or Akk. *šalāl-* 'to take as booty' ~ Arab. *salaba* < \**šalaba* 'he took as booty'; or Hebr. \**gūr* (I) 'to attack', (II) 'to dodge', \**grī* (in the Intensive), 'to urge to battle', \**grr* Hebr. 'to drag away', Akk. 'to roll over', 'to crawl in zigzags'; etc.). Compare also the Semitic root \**uld* 'to bear (a child), to be born' with Berb. (*u*)*ul-t* 'daughter', Centr. Tchad (*u*)*ūl(i)*, East. Tchad *uīl* 'child': the consonant *d* has probably never existed in the latter cases. Cf. in Egyptian the parallel roots *š'* and *š'd* 'to cut', etc. Thus, it seems probable that the Semito-Hamitic verbal root might have originally consisted of two consonants only and a vowel.

The problem of the third radical consonant is a very difficult one. In some cases it is doubtlessly a lexicalized grammatical element (e. g. in the case of the first radical *n*-); in other cases the third radical is a relic of root-reduplication (cf. the numerous class of the so-called *verba secundae geminatae*, as for instance the roots \*šll, \*grr quoted above, alternating with \*šlb, \*gūr). A considerable percentage of triconsonantal verbal roots and practically all the quadriconsonantal (with the exception of reduplicated biconsonantal roots) either contain the ancient sonants *l*, *m*, *n*, *r*, or *ʾ*, *l*, *μ* and therefore possibly were originally biconsonantal roots with a syllabic (vocalic) sonant (the quadriconsonantal roots, respectively, being originally triconsonantal?). This, however, does not explain all cases where the roots are triconsonantal. Possibly the remaining instances are also due to augmentation of the root by an originally grammatical element. Such a phenomenon occurs in the Tchad languages where the originally grammatical character of the third radical is usually more or less apparent.

Turning from the Semitic root to the root in the other Semito-Hamitic languages, we must note that the picture there is greatly distorted by the loss of whole series of consonants at the New Stage. In these languages a very considerable number of seemingly biconsonantal and even uniconsonantal roots occur, both in the noun and in the verb. Still, at least in Egyptian and in Berbero-Libyan, the ratio between biconsonantal and triconsonantal roots probably was originally approximately the same as in Semitic. In Berber there are many cases of a vocalization of the (theoretical) sonants *i*, *μ* and of loss of the consonants of Series 8-10 etc., with quasibiconsonantal roots resulting: \*ḥaguggar > \*əguggar > guggər 'to girdle' (the root is \*ḥgr, not \*gr; verbal stem with reduplication of the second, not the first radical); əndu 'to churn' (the root is \*ndy || \*ndū, cf. Akk. \*ndī 'to throw, to put down'); ələm 'skin, hide' (root \*ilm); ali 'to ascend' (root \*li || \*li).

More complicated is the problem of the root in Cushitic and especially in the Tchad languages. There are few triconsonantal roots in Cushitic that cannot be explained as borrowed from Semitic. Although here the consonantal system has grown much poorer, it is hardly probable that this could lead to a nearly complete disappearance of triconsonantal roots. New Semitic languages, even when they have experienced maximum changes in the ancient phonological system, as in Maltese or Neo-Syriac, still preserve triconsonantal roots in most cases. There is no reason to suppose that the same would not hold true of the Cushitic languages had they originally possessed triconsonantal roots in a comparable number.

In the Tchad languages the biconsonantal roots seem to predominate. In spite of the internal vocalic inflection (which, it must be conceded, is much less developed here than in the other Semito-Hamitic languages), one can, as a rule, establish a root-vowel both in the nominal and in the verbal roots. The Tchad languages have practically not been investigated from the point of view of historical linguistics. Still, it can be supposed that the structure of the Tchad verbal root, biconsonantal with a root-vowel, is presumably an ancient feature. It is probable that while the system of predominantly triconsonantal verbal roots with a total replacement of the root-vowel by the internal vocalic inflection has gained complete supremacy in the Berbero-Libyan and in the Semitic branches, and also in Egyptian (where possibly at some very early stage the root-vowel was still preserved), it never came to prevail in the Cushitic and the Tchad branches. We have already mentioned that even in the former three branches there exists a number of verbal roots with two consonants and a vowel.<sup>54</sup>

#### WORD-FORMATION

Word-formation in Semito-Hamitic has many peculiar features. Word-compounding (with the exception of some cases of reduplication and of rare quadruconsonantal and quinqueconsonantal verbs) is practically absent in Semito-Hamitic. More usual is affixation; but the number of productive affixes in the historically attested Semito-Hamitic languages is very limited (the relative suffix *-i-*, *-āi-* || *-aḡa-*,<sup>55</sup> the individualizing suffix *-ān-* || *-ām-*, the suffixes *-t-* and *-u-* with their variants—of which more will be said below—and prefixes of pronominal origin: *sa-*, *ma-*, *ta-*, *ia-*, *na-*). Very common are stable idiomatic attributive phrases of the type of Akk. *mār 'ummāni* 'son of the artisan' → 'a person belonging to a body of artisans', Arab. *ḏū (a)l-karnaṭni* 'owner of the two horns' → 'double-horned', 'abu (a)n-naymi 'father of the sleep' → 'poppy',

<sup>54</sup> In postulating a vowel in the verbal root (presumably after the first consonant) we are referring to a basic, or "normal" form. As will be seen below, the vocalization of the verb was certainly subject to alternation in its different forms; but originally it did not involve the first syllable. Alternation in the vocalization was also a morphological means of forming the so-called *Stirpes*, see below. A new theory of alternation cf. J. Kuryłowicz, *L'apophonie en sémitique*, Wrocław-Warszawa-Kraków, 1961.

<sup>55</sup> Compare the relative suffix *-āu-* > *-ā* in Cushitic used, among other cases, in the formation of participles and *nomina actionis*, and the Hausa suffix of *nomina actionis* in *-u* with the Common Semitic relative suffixes *-āi-*, *-i-* > *-ī*, and cf. also the alternation *u* || *i* occurring in some other instances in the Semito-Hamitic languages.

Hausa *da-n kunče* 'son of struggle' → 'fighter', *abi-n-či* 'thing of eating' → 'food'.

But the main type of word-formation (as well as of derivative stem-formation, particularly in the verb) is the creation of nominal and verbal stems by means of internal vocalic inflection, sometimes in combination with affixes (mostly with prefixes). There exist certain patterns of vocalism, each having their particular semantics.<sup>56</sup> Thus in Semitic (the examples are from Akkadian but the principle is the same in all Semitic languages):

Pattern	<i>pars-</i> :	produce or result of action.
Pattern	<i>pirs-</i> :	notion connected with a verbal action.
Pattern	<i>parās-</i> :	name of action.
Pattern	<i>pāris-</i> :	participle of action.
Pattern	<i>parrās-</i> :	name of profession connected with action.
Pattern	<i>parrus-</i> :	name of action or resulting state, or participle of resulting state of a factitive verb.
Pattern	$\left\{ \begin{array}{l} ta-prīs- \\ ta-pris-t- \end{array} \right\}$ :	name of action of a factitive verb.
Pattern	$\left\{ \begin{array}{l} ma-pras- \\ ma-pris- \end{array} \right\}$ :	name of the place or instrument of action, etc.

The number of such patterns is extremely great. It is their existence which necessitates a stable consonantal skeleton: a variability in the consonants due to positional differences would otherwise lead to the loss of semantic correlation between the patterns. As has been mentioned before, this functional factor is the cause of phonetic changes of consonants either not taking place at all in Semitic or only in the form of a shift of consonantal series involving the phonemes in question in all positions without loss of semantic correlation of patterns, so that combinative changes are rare in Semitic. It is only at the New stage that the latter type of changes becomes usual, as a result of a far-reaching rearrangement of the entire grammatical structure of the language.

In the formation of the above-mentioned patterns an important role was probably played by the process of infixation of original suffixes. In some, though admittedly rare instances, this can be demonstrated to have been the case. Thus, the Semitic pattern of the Participle of action *\*pāris-* has an

<sup>56</sup> For a detailed discussion see J. Kuryłowicz, *L'apophonie en sémitique*.

infixes *-i-* but corresponds to forms with a suffixed *-i* < *-ī* < *-il* in Cushitic, probably in Egyptian, and even in the Semitic Ethiopic (Bed. *fādg-i*,  $\sqrt{fādg}$ ; Eg. probably *sxdāmm-īl*, *x* being a vowel of unknown quality,  $\sqrt{sādm}$ ; Eth. *\*pa(r)rāsī*).<sup>57</sup>

Unfortunately, the lack of vocalization in Egyptian texts makes it extremely difficult to establish if such a system of patterns existed in this branch. Indirect evidence, however, seems to show that the same principle was in action in Egyptian, though the system of nominal patterns was probably evolved to a lesser extent. The same seems to be true of Berbero-Libyan and Cushitic, but as these languages belong to the New stage, it is only natural that the rigid system of vocalism patterns can no longer be clearly traced here.<sup>58</sup>

The situation in the Tchad languages is different. Here (at least in Hausa) the internal inflexions are not productive in word-formation. Most common are set idiomatic word-groups, and an important part is played by reduplication and affixation. Most of the affixes (leaving aside some which are borrowed from neighbouring languages) are Common Semito-Hamitic, as the relative suffixes *-i*, *-īa*, *-aḡ*, *-ḡa*, the abstract suffixes *-(n)ti*, *-(n)ta*, and the prefixes *ma-*, and *ma-i-*.

Particularly interesting is the Hausa suffix *ma-i-* because it stands on the borderline between a grammatical morpheme and a lexeme. It can be prefixed both to a nominal stem and to an entire set word-group (*ma-i-hankali* 'clever' from *hankali* 'mind'; *ma-i-baki-n kaī* 'ignorant' from *baki* 'dark' and *kaī* 'head'). The prefix itself consists of a demonstrative element *ma-* (in this form it is prefixed to verbal stems) and the per-

<sup>57</sup> Cf. the names of place and instrument which are formed in Hausa after the pattern *ma-bud-i* 'key' (from *buda* 'to open'), and in Semitic both after the pattern *ma-pras-* and the pattern *ma-pris-* (< *\*ma-pras-i-*?).

<sup>58</sup> Cf., however: Eg. *m-h'-t* 'balance' (*h'y* 'to measure'), *m-sḏr* 'ear' (*sḏr* 'to sleep'); Berb. *ta-yūr-i* 'door' (*ayār* 'to shut'), *a-īlal* 'theft' (*aīl* 'to abduct'), *aīl(ə)l* 'to steal') *a-mā-ksa(y)* 'shepherd' (*aksu* 'to herd') *a-nəb-bal* 'undertaker' (*ənbal* 'to dig a grave'); Bed. *fādgī* (Participle to *fedig* 'to leave, divorce'), *fakik* (Participle to *fekik* 'to open'), *dān* 'beginning' (*din* 'to begin'), *ma-dir*, *ma-dēr* 'murder' (*dir* 'to kill'), *me-mhag* 'sweeping', 'sweeping-broom' (*məhag* 'to sweep'). In Egyptian we know of changes in vocalism and even of metatheses due presumably to change in the stress, as well as to the open or closed character of the syllable. This may be one of the ways of development of the different vocalisms in the Egyptian as well as in the Semitic branch (thus, Eg. *sn(-w)* 'brother', read *\*san(y)* > Copt. *son*; Eg. *sn-t* 'sister', read *\*sān-at* > Copt. *sōne*; Eg. *bin* 'bad' (Masc.), read *\*bā'in-* > Copt. *bōōn*; Eg. *bin-t* 'bad' (Fem.), read *\*ba'n-at* < Copt. *boone*; Eg. *h'-f-w* 'serpent' (Masc.), read *\*ha'f-au* (< *\*haf'-aḡ?*) > Copt. *hof*; Eg. *h'-t* 'serpent' (Fem.), read *\*hā'fā'-at* > Copt. *hōfō*, etc).

sonal pronoun of the 3rd person Singular; thus in the Plural *ma-su-hankali*. This is typologically an archaic feature, since the prefix is connected with the Common Semito-Hamitic pronoun \**mă*, and at the same time occurs in most Semito-Hamitic languages (*ma-*, *mu-*). It is difficult to imagine that a pronoun which already in Common Semito-Hamitic (or, at least, in some of its dialects) had developed into a prefix, could later be again lexicalized in Hausa.<sup>59</sup>

The prefix *ma(-i)-* is used in Hausa in forming adjectives, participles, abstract nouns, and names of place or instrument of action (in the last three cases it is used in combination with the relative suffix *-i*).

This is also the approximate range of the use of the prefixes *ma-*, *mu-*, *m-* in the other languages as well, where they probably arose in a similar way.

It will be seen from the chapter on pronouns that not only *ma-* but also *sa-*, *la-*, *n(a)-* are known to be among the most common pronominal stems (demonstrative pronouns and personal pronouns of the 3rd person). A pronominal character is inherent also in the *t(a)-*element (pronoun characterizing the "socially passive grammatical class", or feminine gender). It follows, as can be clearly seen in the instance of the Hausan prefix *ma(-i)-*, that all Semito-Hamitic types of word-formation through prefixes are derived from set idiomatic word-groups of the type of the Arabic *ḏū (a)l-ḡarnaiṇi* 'double-horned' where the first element of the group is a demonstrative pronoun.<sup>60</sup>

Thus, in their systems of root- and word-formation the Semitic, the Berbero-Libyan, and the Egyptian branches stand in opposition to the peripheral Tchad branch which preserves many archaic phenomena; the Cushitic branch seems to occupy an intermediate position.

## VOCABULARY

Table III gives an idea of the degree of proximity between the different branches of the Semito-Hamitic family in their vocabulary.

<sup>59</sup> The interpretation of *ma-* by N. V. Jušmanov as the Hausan preposition of the Dative seems to me less probable in view of analogies with other Semito-Hamitic languages. Although archaic, this feature does not necessarily date from the Common Semito-Hamitic period; it may have been a later development in Hausa parallel to a similar but earlier development in the other Semito-Hamitic languages.

<sup>60</sup> It may be of interest to note that in Arabic *ḏū* is only secondarily regarded as a noun ('owner'), just because it occurs in such phrases; etymologically it, too, is a demonstrative pronoun.

Table III

## Samples of Common Semito-Hamitic Words

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'father'	*'ab- (Akk. Pl. 'abb-ū)	'b-t 'family'	ibba, abba	Agau abba, Som. abbo	H. 'uba
'mother'	*'imm-	mw-t, Copt. maau	imma, Lib.-Num. m-t		H. 'uwa (dial. 'umma borrowed?)
'brother'		sn, Copt. son		Bed. san	E. sen
'man (husband)'	*mut-	*mt?			H. mutum
'mouth'	*p-; Aram. p-umm-, Arab. f-am-, Akk. pū(m); Akk., Hebr. pān- 'face' (cf. 'anp- 'nose')	fnḏ 'nose'	-fn, -nf 'muzzle', 'face'	Comm. Cush. af	H. 'aji 'gulp, bit'; W. po 'mouth'; S. fam
'lip'	*šap-t-	sp-t			H. lebe (belongs here? Cf. analogous words in other African languages and elsewhere)



Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'tongue'	*li/aš-ān-	ns, Copt. las	i-ls		H. *ha-ls(e), E. lls(i)
'tooth'	*šin-	sn 'harpoon'	Tam. ə-sin; Šilh a-sənnan 'thorn'		E. sen, sinanu, C. sannai (some of these forms may be Plural)
'eye'		ir-t		Som. il	C. ɪil
'heart'	*libb-	ib	ul < *ulh < *lb, *lab?	Kaffa nibbō, Galla labbe	S. naffu, C. nāfu
'bone'		ks	i-γəs		H. *kas(i)
'leg'	*šūk- 'thigh' (be- longs here?)		W. ta-zuγ-t 'leg'	Bed. sukenā, Agau zaḡ'ana 'foot'	W. *seke 'leg'
'finger-nail'	*tīpr-		Tam. a-tfər	Agau č'iffər	

Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'foot, footprint'	* <i>rdī</i> 'to tread, to trample, to drive', etc. * <i>rūd</i> 'to drive around', etc.	<i>rd</i> , Copt. <i>rat</i> 'leg'		Bed. <i>rād</i> 'footprint'	
'water'	* <i>nād</i> - (always in the Plural) Cf. <i>īamm</i> - 'sea'	<i>m(y)-w</i> 'waters', Copt. <i>mou</i> . Cf. <i>im</i> 'sea' (borrowed?)	<i>a-ma-n</i> 'waters'	Bed. <i>īam</i> 'water', Som. <i>māh</i> 'to run (of water)', <i>m-an</i> 'sea'	W. 'am, E. 'ame, S. <i>īam</i> 'water'
'day'			<i>a-ss</i>	Mbugu <i>azi</i>	C. <i>sē</i>
'evening'	Akk. <i>muš</i> - 'night'; Arab. <i>masa(i)</i> - 'evening'	<i>msw-t</i> 'evening meal' (or from the root * <i>sw</i> ?)	<i>ans</i> 'to spend the night'	Bed. <i>amas</i> 'evening'	
'ram, lamb'	* <i>kār-r</i> - 'lamb'	ġ 'fledgeling, cub'	<i>i-kārri</i> , <i>i-kru</i> 'ram'		
'dog'	* <i>kal-b</i> -			Saho <i>kare</i> , Wálamo <i>kana</i>	H. <i>kare</i> , C. <i>kele</i> ( <i>u</i> )
'gazelle'	Akk. <i>naij-āl</i> - 'a species of gazelle or deer'			Bed. <i>nā'i</i> 'goat'	

Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'cattle'	* <i>la'-āt-</i> 'wild cow'			Saho <i>lā</i> , Som. <i>lā'</i> , Agau <i>lay</i> 'cattle'	E. <i>la</i> 'cattle', W. <i>lo</i> 'meat'
	* <i>šā'-</i> 'a sheep or goat' (Pl. <i>ša'n-</i> )		Tam. <i>asu</i> 'a cow or ox'	Bed. <i>šā'</i> (Masc.) 'a cow', (Fem.) 'meat'; Som. <i>šā'</i> 'a cow or ox' (Plu- ral <i>lā'</i> )	H. <i>sā</i> 'bull', E. <i>sū</i> 'meat'
'fruit', 'offspring'	* <i>piri-</i>	<i>pr-t</i> 'fruit'		Bed. <i>firi</i> 'to produce offspring, to flour- ish'	
'urine'	* <i>tain-</i> here?)	<i>wšš</i> , <i>wšš</i> 'to uri- nate'	<i>a-ṣsa</i> 'urine'	Bed. ( <i>h</i> ) <i>ūša</i> 'urine'	
'king, chief'	* <i>šarr-</i>	<i>sr</i>			H. <i>sar-k(i)</i> (be- longs here?)
'name'	* <i>ši/um-</i>		<i>i-sam</i> (borrowed?)	Bed. <i>sim</i> 'name', <i>semi</i> 'to name'	W. <i>sim</i> , C. <i>summo</i> , H. <i>sūnā</i>
'to bear, to be born'	* <i>ild</i>		<i>ul-t</i> 'daughter', Lib.-Numid. <i>w-</i> [ <i>&lt; *ūa(t)-</i> ] 'son', <i>ul-t</i> 'daugh- ter'		C. <i>ul</i> , E. <i>ūil</i> 'child'

Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'to suck'	* <i>ink</i>	<i>s-nk</i>		Som. <i>nug</i>	
'to lick'	* <i>lkk</i> / <i>lkk</i>		<i>alləɣ</i>	Bed. <i>lak</i> (cf. Agau <i>lan̄ki</i> 'tongue')	
'to eat'	* <i>sti</i> 'to drink' (belongs here?)		<i>ətš</i> , <i>tə-itt</i>	Bed. <i>tiḷu</i>	H. * <i>ti</i>
'to swallow'	* <i>t'm</i> 'to swallow, to taste'			Saho <i>ta'am</i> 'to swallow', (borrowed?), Bed. <i>tam</i> 'to eat'	H. ' <i>d'an-d'ana</i> 'to taste'
		' <i>m</i> 'to swallow'		Bed. <i>am</i> 'to devour', Som. 'an 'to eat'	
'to drink'		<i>zw</i> (belongs here?)	<i>su(μ)</i>		E. <i>suḡa</i> .
'to copulate'	* <i>n̄ik</i>	<i>nk</i>	Tam. <i>ənki</i>	Bed. <i>nek<sup>w</sup>i</i> 'pregnancy'	
'to beget'	* <i>hrjū</i> 'to be pregnant' (< * <i>ru?</i> )	<i>iwr</i> 'to conceive'	<i>aru</i> 'to bear (a child)'	Bed. 'ōr 'son, child'	H. 'array 'child' (dubious)
'to die'	* <i>māt</i>	<i>m(w)t</i> <sup>1</sup> , Copt. <i>mu</i>	<i>əmmat</i> (Imperfective <i>i-mnut</i> )		H. <i>mutu</i>

<sup>1</sup> Written *mt*

Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'to be'	* <i>h<sub>2</sub>ū</i> , * <i>h<sub>2</sub>ī</i>	<i>iw</i> (belongs here?)	<i>əh/ihi</i> (belongs here? Possibly from * <i>izi</i> )	Bed. <i>hāi</i> , <i>fāi</i> , Som. <i>hai</i>	
		<i>wnn</i>		Saho <i>na</i>	H. <i>nā</i>
'to make; to become'	Akk. * <i>ūrī</i> 'to send' (belongs here?)	<i>iry</i> , Copt. Sahid. <i>ire</i> , Copt. Fay- yum. <i>ili</i>	<i>ili</i> 'to be'	Som. - <i>l</i> , Bed. <i>yēr</i> (belongs here?)	H. <i>īi</i> 'to make' (belongs here?)
'to make'	* <i>gī</i>		<i>asi</i> 'to take'	Sidamo <i>as</i> 'to make'	H. <i>sa</i> 'to put, to urge'
'to build'	* <i>bū</i>		<i>əbna</i> (probably borrowed?)	Sidamo <i>min</i>	E. <i>beni</i> 'to build', W. <i>bin</i> 'house'
'to enter'	* <i>bū</i> , * <i>bā</i>	<i>bw</i> 'place'		Bed. <i>bāi</i> , "Galla" <i>bā</i>	Common Tchad <i>ba(i)</i> 'to go, to walk'
'to come'	Arab. ' <i>aḡā</i> 'to go forth to 'fetch' (belongs here?)	<i>iw/y</i> , Copt. <i>ī</i>	Tam. <i>aii</i>	Bed. <i>ii</i>	

Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'to ascend'	* <i>ʾlī</i>	<i>iʾr</i> , 'ry, Copt. <i>ale</i>	<i>ali</i>	Saho 'al 'high, top', Som. 'al 'mountain'	
'to end'	* <i>tm</i>	<i>tm</i> 'to close', end,		Bed., Agau <i>tim</i> 'to be silent' (belongs here?)	
'to burn (with cold or heat)	* <i>ḥrr</i> 'to be (stiff with) cold', Akk. 'to dry'	<i>ḥrr</i> 'to burn (bricks)',	<i>i-ḥar</i> 'to be dry' (Qualitative; cf. <i>karur-at</i> 'to burn')		
'to call'	* <i>ḥr</i>		<i>ḥar</i>		H. <i>kira</i> (belongs here?)
'to hear'	* <i>šm</i>	<i>šdm</i> (?)			C. <i>samai</i> 'ear'
'to be good, beautiful'		<i>njr</i> (< * <i>n-fr</i> ?)	Tam. <i>i-frar</i> (Qualitative)	Bed. <i>nefir</i> 'to be pleased', ant, to be pleased'	
'to know'	Arab. <i>ḡatan</i> - 'idol', S. Per. '(boundary) sign', (belongs here?)	* <i>wsn</i> , Demot. <i>swn</i> , Copt. <i>soḡn</i>	<i>wsn</i> (root <i>swn</i> ?)		H. <i>sani</i> , * <i>sina</i> , C. <i>san</i>

Table III (continued)

Meaning	Semitic	Egyptian	Berbero-Libyan	Cushitic	Tchad
'black'	* <i>ʕlm</i> 'to be dark or black'			Bed. <i>duluma</i> , Agau <i>ɕ'alam</i>	C. <i>c'illim</i>
'yellow, green'	* <i>ʕar-k-</i>	<i>i'k-t</i> 'leek, vegetable'	<i>i-uray</i> 'to get or be yellow' (Qualitative)		
'right' (dexter)	* <i>ʕamān-</i> 'right; south'	<i>imn</i> 'the right side; the West'			H. <i>ʕamma</i> 'west'
'two'	* <i>tn</i>	<i>sn</i>	<i>sin</i>		
'four'		<i>i-fdw</i> , Copt. <i>ftou</i>		Bed. <i>fadig</i> (belongs here, or < * <i>ʕadig</i> ?) Kafia <i>ayda</i> (belongs here?)	H. <i>fudu</i>
'six'	* <i>ʕid-</i>	<i>sts</i> < <i>srs</i> (belongs here?)	* <i>sids</i>		H. * <i>sidda</i>
'seven'	* <i>ʕib-</i>	<i>sft</i> (belongs here?)	<i>sa'</i> (< * <i>saḥ</i> < * <i>sab-</i> ?)		
'eight'	* <i>ʕamān-i-</i>	<i>ʕmnw</i> (belongs here?)	<i>tam</i> (< * <i>tamm</i> ?)		

Incomplete as the data of this table are,<sup>61</sup> especially with regard to some of the languages, and particularly to the Cushitic branch, its analysis shows that any one branch of Semito-Hamitic has most points of contact with the Semitic branch, less with the Tchad branch, still less with Berbero-Libyan and Cushitic, and least of all—with Egyptian. This is partly due to the fact that the number of observed common words is a function of the degree to which the languages in question have been investigated: in fact, the Semitic languages have been studied far more thoroughly than the others, while the Cushitic are inadequately known. It should be noted, however, that the well-studied Egyptian has the least number of words established as common with the other branches. This again is partly due to the considerable phonetic changes in Egyptian which may make the reflexes of Common Semito-Hamitic roots less apparent, but in part, probably, also to a certain isolation of the Egyptian branch, which is noticeable also in the grammatical field. The considerable number of words which the Cushitic and the Tchad branch have in common is likewise hardly accidental, seeing that the Cushitic vocabulary has been little studied.

It should be noted that at the present stage of the development of Semito-Hamitic linguistics it is not always easy to distinguish between borrowings from Arabic and the other Semitic languages, and Common Semito-Hamitic material. We hope to have been cautious enough in the selection of words for our table.

In addition to those included in Table III, there are not a few words which occur at least in two of the branches of the Semito-Hamitic family. Here are a few examples, in no way claiming to be exhaustive

<sup>61</sup> The material is mainly after J. H. Greenberg (*Studies in African Linguistic Classification*, New Haven, 1955) and M. Cohen (*Essai comparatif...*). Included in the table are words which have been noted by these scholars in at least three of the branches of the Semito-Hamitic family, and for the Semitic branch, mainly those which are Common Semitic; for the Berbero-Libyan branch, we have included mainly Common Berber words and partly Tamašek, the vocabulary of which has been better studied and is probably more archaic. For the Tchad branch, words are included which have been noted by J. H. Greenberg at least in two of the groups inside the branch (the name of the particular dialect is not mentioned, and only the group to which it belongs is referred to, i. e., W. for the Western, or 1st group, C. for the Central, or 2nd group, E. for the Eastern, or 9th group, and S. for all the others, or Southern dialects; H. stands for Hausa).

Unfortunately, the vocabulary of Hausa, although investigated incomparably better than that of the other Tchad dialects, is not very well suited for comparison because of the numerous borrowings. Phonetically and lexically the 2nd (C.) and the 9th (E.) groups seem to be the more archaic ones.



'zl (Aram.) 'to go'	azzəl 'to run'
*dam- 'blood'	i-damm-ən 'blood' (Pl. <i>tan-tum</i> )
*gll 'to roll', *galgal- 'wheel'	gələll-at 'to be round'
*gūr, *grī 'to attack, to urge, to incite (to battle)'	əgər, əgru 'to let out; to throw'
kaik-at- (Arab.) 'egg'	tə-kaki-t 'egg' (borrowed?)
*lmd 'to learn'	əlməd (Tam.) 'to learn, to understand, to read'
	əmgər 'to mow down'
*mgr 'to fall, to throw' (Aram.); 'to throw away, to leave' (Hebr.); 'to pardon, to show mercy; to agree' (Akk.).	
*m/nīl 'to bow, to stretch'	əm/nḏu 'to throw (oneself)', 'to jump'
	əndər 'to moan'
*ndr 'to bare one's teeth, to be furious, to roar' (Akk.); 'to vow' (Hebr., Aram.)	
*ndī 'to lay down, to throw'	əndu 'to churn butter'; ənd 'to castrate' <sup>63</sup>
	ənzəy 'to be destroyed, mutilated'
*nzk 'to be harmed, damaged'	əfrəs (Tam.) 'to mow, to harvest'
*prs 'to cut through, to divide'	ɣaɪm 'to stay' (< *kāɪm, Stirps A, see below).
*kūm 'to stand (up)'	ərgəm 'to injure'
*rgm 'to stone', 'to curse'; Akk. 'to make noise, to shout', 'to read'	

<sup>62</sup> The examples quoted belong mostly to verbal roots. This is a result of the fact that Common Berber nouns have not been collected, while there is a standard monograph on the Common Berber verb (A. Basset, *La langue berbère. Morphologie. Le verbe. — Etude de thèmes*, Paris, 1929). The brilliant work of A. Basset is unfortunately not always clear on the point of the classification of Berber verbal stems. Thus, the formation of a triconsonantal root by reduplication of one of the radicals (as in *əbdəd* 'to stand', etc.) is regarded on the same level with reduplication as a means of forming verbal stems (Stirpes, see below; as in *əlli* 'to suspend' and *ali* 'to ascend'; or in *əmigami* 'to ask for in different places' and *əgmi* 'to seek'); the morphological alternation of vowels (Perfective *i-azu*, Imperfective *i-uza*) is regarded on the same level as the occurrence of supplementary vowels—probably as a result of the vocalization of the sonants *ɨ*, *ɣ* and the loss of the consonants of Series 8-10 (as in *ali* < \*'li), and as the specific vocalism of certain verbal stems (Stirpes, as *ɣaɪm* < \*kāɪm, cf. Arab. *kātala*; *ag-dəh* < \*ha-gdi/as?, cf. Arab. 'a-ktala, etc.). The Berber verbal form used in the dictionaries and quoted in our tables is the Imperative.

<sup>63</sup> Cf. Russ. *кладеный баран*.

\**rī* 'to wish'<sup>64</sup>  
 \**tis*- 'nine'

*iri* 'to want'  
*təzza* (< \**tis*'a) 'nine', a. o.

### Semitic and Egyptian

\**uḡn*- 'ear'

*idn* 'ear' (replaced by the word *msḏr* formed after the pattern \**ma-pa/is*- from the verb *sḏr*)

\**hmm*- 'to be hot'

*hmm* 'to be hot'

\**ḥsb* 'to count'

*ḥsb* 'to count'

\**marr*- 'hoe'

*mr* 'hoe'

\**ʿajn*- 'eye'

(*y*)*n* 'eye' (replaced by the word *ir-t*)

\**karb*- 'intestines'

*kʿb* 'intestines'

\**šamm*- 'grass, plant'

*sm*, Copt. *sim* 'plant'

\**zyr*, \**šyr* 'to be small'

*z* 'son' a. o.

### Semitic and Cushitic

\**mḥṣ* 'to beat'

*maḥaṣ* (Agau) 'to beat' (borrowed?)

\**škī* 'to give to drink'

*seku* (Agau) 'to drink'

\**ṭll* 'to give shade'

ṣ'*alal* (Agau) 'to give shade' (borrowed?), a. o.

### Semitic and Tchad

\**wšn* 'to sleep', \**šin-t*- 'sleep'

*wisan* (C.) 'to sleep', *sun* (C.) 'sleep'

\**šun-t*- 'dream'

\**šamā*/'*l*- 'heaven, sky'

*sama* (H.) 'above', (C.) 'rain' a. o.

### Egyptian and Berbero-Libyan

*inm* 'skin'

*iləm*, *ələm* 'leather'

*d'd*-*t* (< \**girgir-t*- or \**gur-gur-t*-) 'assembly', originally 'circle'

*a-grur* 'stone circle'; *a-grau* (Riff) 'assembly'

*fsy* 'to fry', 'to bake (clay)'

*əfsi* 'to dissolve (by heat)'

*gmy* 'to find'

*əgmi* 'to seek'

*mr-t* 'chin, beard'

*ta-mar-t* 'chin, beard'

*wnš* 'wolf'

*uššən* 'jackal', a. o.

<sup>64</sup> A variant of \**ršī*?

## Egyptian and Cushitic

'by 'panther'	<i>ibā</i> (Agau) 'panther'
<i>bi</i> 'metal'	<i>birta</i> (Saho) 'iron'
<i>ib</i> 'kid (of a goat)'	<i>ab</i> (Bed.) 'she-goat'
<i>nīr</i> (-* <i>nāfir</i> ?) 'god'	<i>inkerā</i> (Agau) 'soul, spirit', a. o.

## Egyptian and Tchad

<i>mry</i> 'to love'	<i>marmari</i> (H.) 'desire', a. o.
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## Cushitic and Tchad

<i>bir</i> (Agau, Chamir dial.), <i>bilō</i> (Som.) 'blood'	<i>bari</i> (E.), <i>beli</i> (S.) 'blood'
<i>danbi</i> (Agau, <i>dirba</i> Chamir dial.), <i>dambo</i> (Som.) 'back'	<i>deba</i> (S.) 'back' <sup>65</sup>
<i>gabā</i> (Agau), <i>gāb</i> (Bed.) 'near'	<i>gabā</i> (H.) 'in front of, in the presence of'
<i>kurō</i> (Kaffa), <i>okalo</i> (Saho) 'ass'	<i>koro</i> (W., C.) 'ass', <i>kuro-ta</i> (S.) 'she(?) -ass'
<i>maḷn</i> (Gimirra, West. group), <i>men-ti</i> (Sidamo), <i>minne</i> (Geleba, East. group) 'wo- man'	<i>men</i> (W.), <i>min</i> , <i>muni</i> (S.) 'wife'
<i>esiṇ</i> (Agau, Chamir dial.), <i>sinan</i> (C'ara, West. group), <i>san</i> (Som.) 'nose'	<i>siṇ</i> (C.) <i>asinan</i> (S.) 'nose', a. o.

## Berbero-Libyan and Tchad

<i>a-gaju</i> 'head'	<i>kaḷ</i> (H.) 'head' (not akin?)
<i>səmmiḍ</i> 'is cold' (Qualitative)	<i>simmade</i> (C.), <i>semmia</i> , <i>simer</i> (S.) 'cold, wind' <sup>66</sup> a. o.

In general, it can be said that all five branches are more or less independent in their vocabulary, although preserving enough of the common lexical material to regard them as having a common descent; but they must have separated a long time ago. The Berbero-Libyan branch seems to be the one

<sup>65</sup> Cf. Arab. *ḍbr*- 'to be behind', *ḍubr*- 'posteriors'? (M. Cohen).

<sup>66</sup> Is Sem. *šmt* 'to be compared?' (Hebr. 'to let loose', Aram. 'to loosen', Arab. 'to release', 'to suspend', etc.; J. H. Greenberg).

nearest to the Semitic, and the Cushitic branch seems to occupy an intermediate position between the Tchad branch and the others.

In view of the considerable phonetic development in the individual languages one should note that the number of instances in which not only the consonantal skeleton but even the vowel of the primary nouns is preserved in more than one branch, is not so small. It is also characteristic that it is the biconsonantal roots that usually are common to several branches.

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## MORPHOLOGY

### THE NOUN

A characteristic feature of all Semito-Hamitic languages is the presence of two genders in the noun. The importance of this feature has formerly been much overrated, and all African languages having two genders were classified as "Hamitic" by C. Meinhof. It is true that the purpose of C. Meinhof's work was not so much linguistic study proper as an attempt to discover traces of a supposed Europeoid-Mediterranean "Herrenrasse" in Africa; consequently, his linguistic method was not sufficiently strict, though his results were for a long time assumed to be authoritative. However, it is obvious that this purely typological feature, and a typological feature not of the first order at that, can in no way be a proof of a genetic relationship, as has been very convincingly shown in the instance of African languages by J. H. Greenberg.<sup>1</sup>

Moreover, it is known that there are traces of an older system of genders, or "grammatical classes",<sup>2</sup> in Semitic. But if the endings of a certain group of Semitic nouns<sup>3</sup> seem to

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<sup>1</sup> J. H. Greenberg, *Studies in African Linguistic Classification*, New Haven, 1955.

<sup>2</sup> In the following we distinguish "gender" from "grammatical class". The division of nouns by genders is purely formal, and there is usually no tangible semantic reason for this division; the number of genders is usually two or three; the division of nouns by grammatical classes is semantic as well as formal, and their number is unlimited. Thus, Sumerian has two grammatical classes, "animate" and "inanimate", or "socially active" and "socially passive"; the Bantu languages have many grammatical classes, including "human beings", "animals" (wild and domestic), "plants", "places", etc. The Northeastern Caucasian languages have usually four grammatical classes but their semantic differentiation is not always quite apparent, so that they can also be termed genders.

<sup>3</sup> Thus, (1) *-b* is the sign of the grammatical class of wild and harmful animals: \**arn-ab*- 'hare', \**dub-b*- 'bear', \**di'-b*- 'wolf', \**dub-b-*, dim. \**dubāb*-('stinging) fly', \**kal-b*- 'dog' (originally a wild one?), \**lab-b*- 'lion',

be evidence of the fact that such a system had once existed, they still are no more than survivals; the two-gender system is typical of all Semito-Hamitic languages known to history. It can be noticed without much difficulty that originally it was a system of two grammatical classes (the "socially active nouns" class = masculine gender, the "socially passive nouns" class = feminine gender):

(1) To the feminine gender belong not only terms for animate beings of the female sex but also (a) nouns socially passive in their essence, e. g. objects of action, as Akk. *zitt-* 'portion, result of division of property', *šalam-t-* 'corpse', *lubuš-t-* 'clothing', *ta-rbī-t-* 'issue, offspring (also male offspring)', (b) nouns expressing a unit or part of a whole (Arab. *naml-* 'ants', *naml-at-* '(one) ant'), as well as diminutives, (c) abstract notions (Akk. *damik-t-* 'the good').

(2) Terms for animate beings of the female sex with an active social function or a function different from that of the corresponding male, although at present (at least in Semitic) mostly construed as feminine, have no formal morphological element expressing the feminine gender (Sem. \**imm-* 'mother', \**rahl-* 'ewe', \**atān-* 'she-ass', Arab. *ḥāmil-* 'pregnant woman', *kā'id-* 'a woman no longer bearing children', Berb. *imma* 'mother', Cush. Bed. *šā* (Masc.) 'cow', *šā* (Fem.) 'meat', Hausa *mače* 'woman').<sup>4</sup>

(3) The sign of the feminine gender *-t* is also used to distinguish the object-form of the personal pronoun.

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\**akr-ab-* 'scorpion', \**ta'l-ab-* 'fox, jackal', cf. the Sem. dimin. \**tu'āl-* 'fox' and Cush. *kana*, *kare*, Tehad *kele*, *kare* 'dog'; (2) *-r/-l* is the sign of the grammatical class of animals used in production (as objects of herding or hunting): \**imm-ar-* 'ram', 'lamb', \**baḳ-ar-* 'cattle', \**ḥi/am-ār-* 'ass', \**kar-r-* 'lamb' (the vocalism is dubious; Akk. *kir-r-um* might represent *ker-r-um* < \**kar-r-um*, Hebr. *kar* < \**karr-u* but the Eg. *ḥ* seems to show that \**kir-r-* was the original form), \**lah-r-* (or \**raḥ-l-*) 'ewe', \**aḥ-r-* 'ass-foal', \**ṭay-r-* 'ox', \**aḥ-al-* 'deer', \**gamm-āl-* 'camel', \**naḥ-al-* (Akk.) 'a kind of gazelle', \**ag-al-*, \**ig-l-* 'calf', \**raḥ-l-* (or *lah-r-*) 'ewe', etc.; cf. Eg. *ḥ* (< \**kir-*) 'young of animals or birds', ' ' 'ass' (borrowed?); Berb. *i-kru*, *i-korri* 'ram'; Cush. Bed. *nā'i* 'goat' and perhaps Bed. *kām* 'camel'. There are several exceptions in Semitic but these mostly are either borrowed terms or, originally, epithets. In the other Semito-Hamitic languages *-b* and *-r/-l* have, as far as I know, not been observed as signs of grammatical class, but cf. also Eg. *ib* 'elephant', *db* 'hippopotamus', *z'b* 'wolf'; *zr* 'sheep', etc.

<sup>4</sup> To the same group belong geographical terms and terms for parts of the body existing in pairs or in even numbers. Cf. also nouns of feminine gender belonging to the same group which, though they exhibit a formal sign of feminine gender in the Singular, have a Plural of the masculine type, as Berb. *ti-yaṭṭ-an* 'goats'. There is also an opposite phenomenon (masculine nouns with a sign of the feminine gender either in the Singular or the Plural).

There are three types of indication of the masculine and feminine gender in Semito-Hamitic, as can be seen from the following Table IV:

Table IV

Types of Expression of Gender in Semito-Hamitic

Languages Gender	Cushitic, Egyptian	Berbero- Libyan	Semitic, Tchad
Masculine	*-(a)u <sup>-1</sup> and zero	*u <sup>-2,3</sup>	zero
Feminine	*-(a)t <sup>-1</sup> > *ah > -ā > a > zero	$\begin{cases} *t\ldots t^3 \\ *t\ldots^3 \\ *\ldots t \end{cases}$	*-(a)t <sup>-4</sup> > ah > ā > a

Notes: <sup>1</sup> These suffixes are generally lost in New Semito-Hamitic. In Bedawye both suffixes of gender are preserved in the Accusative (m. -b < \*-u-a, f. -t < \*-t-a), and the feminine suffix also in the Genitive (-t-i). In Kaffiço all masculine nouns have the ending \*-au > -ō.

<sup>2</sup> In Status annexus only (see below).

<sup>3</sup> The prefixes Berb. u-, t- probably were originally independent lexemes, i. e., pronouns of the respective grammatical classes, cf. the article m. u-ū, f. t-ū in Bedawye. In Numidian-Libyan there was no prefixed element of masculine gender, at least in writing.

<sup>4</sup> In some of the Southern Tchad languages this suffix is preserved in the forms -t-a, -t-i (originally oblique cases?), Hausa \*-at > -a (possibly also the Hausa suffix -ta is originally a sign of the feminine gender, although at present -t- is regarded as part of the stem). In most Middle and New Semitic languages -t- is usually preserved, but the variant -at- > -ā.

The declension has been lost in Middle Semito-Hamitic languages with the general loss of the external vocalic inflection. We have no means to judge of the situation in Old Egyptian because the texts are not vocalized; thus, if we leave out some survivals in Cushitic and possibly in the Tchad languages,<sup>5</sup> we can judge of the Semito-Hamitic declension only by Ancient Semitic. In its most complete form the system of declension has been preserved in Old Akkadian, where we observe the following forms<sup>6</sup>:

<sup>5</sup> Cf. notes 1 and 4 to Table IV.

<sup>6</sup> The form in -a is an archaic survival even in Old Akkadian. See I. J. Gelb, *Old Akkadian Writing and Grammar*, 2nd ed., Chicago, 1961, pp. 141-142; I. J. Gelb, "La lingua degli amoriti", *Accademia Nazionale dei Lincei, Rendiconti della Classe di Scienze morali, storiche e filologiche*, Ser. VIII, Vol. XIII, 3-4, 1958, pp. 154-155.

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|--------------------------|------------------|
| (1) Absolute form:       | zero or -a       |
| (2) Locative-Nominative: | -u <sup>7</sup>  |
| (3) Accusative:          | -a <sup>7</sup>  |
| (4) Genitive:            | -i <sup>7</sup>  |
| (5) Dative-Locative:     | *-s <sup>8</sup> |

The Absolute form was used (a) for the noun without syntactic connections (as in apostrophe, in enumeration), (b) for the noun as subject or object when followed by a noun or pronoun used as attribute, and (c) for the noun as predicate.

The Locative-Nominative case-form, besides its function of expressing the locative (which has been lost in all other Semitic languages, except in Old Akkadian) was also used to express the subject of the verb. As will be seen below, this was originally true only of the transitive verbs, of the verbs of inchoative action, and of the verbs of motion. Judging by the fact that other characteristic features of the ergative construction (see above) were also present in Ancient Semitic (thus, there was a formal distinction between the transitive and the intransitive conjugation, there was no clearly expressed Passive Voice, there existed pronominal affixes expressing not only the subject of the verb but the object as well), we can with a great deal of confidence conclude that the Semitic Nominative was originally an Ergative case; the Ergative coinciding with the Locative is a very widespread phenomenon.<sup>9</sup> It is true that later even in Akkadian the Locative in -u and the Nominative became formally distinct (mostly syntactically). In Egyptian,<sup>10</sup> as we will see below, a Locative-Nominative (Ergative) case probably did not develop at all, or else it was replaced by a general Oblique (Genitive) case at an early stage.

The Accusative case may probably be regarded as a functional variant of the Absolute form. And no wonder, because in the languages with ergative construction the direct object of the transitive verb (regarded as the subject of the state resulting from the action), and the subject of the intransitive verb, also indicating a state, are naturally expressed in the same way, i. e., by the Direct, or Absolute (zero) case, while

<sup>7</sup> These case-endings are followed by "mimation"; see below.

<sup>8</sup> In Old Akkadian -iš < \*-is, in the other Ancient Semitic languages apparently \*-(a)s > ah (Ugar.) > ā (Hebr.). The case-ending \*-s > -h probably appears also in Southern Peripheral Semitic, see A. F. L. Beeston, *A Descriptive Grammar of Epigraphic South Arabian*, London, 1962, § 33:6; Arabic seems not to have known this case, or else it had coincided with the *Accusativus loci*. It is not clear whether the Central and Western Cushitic Dative in -s is of the same origin or has developed secondarily from a postposition.

<sup>9</sup> This applies to Sumerian, and to several Caucasian languages.

<sup>10</sup> On the situation in Berbero-Libyan see below.



the subject of the transitive verb, or subject of action, is expressed by the Locative or another similar oblique case. In order to give a full picture of an originally ergative construction in Semito-Hamitic, we ought to be able to prove that the subject of the nominal and intransitive predicate could originally be expressed in Semito-Hamitic not by the oblique case which was used for subject of action but by the direct case, or, in other words, by the Absolute form. We shall try to show that such was really the situation at least in Egyptian.

The Accusative, once developed as contrasting to the Locative-Nominative, itself acquired a supplementary locative sense as well (*Accusativus loci*); this, too, is no wonder since the verbs of motion were construed as transitive.

The Genitive case has a common origin with the relative suffix *-i*, and could indicate not only possession but also a broader group of relationships.<sup>11</sup> In the Plural (and, in Egyptian, possibly in the Singular as well) the Genitive played the role of a general Oblique case.<sup>12</sup>

It is very difficult to say anything definite of the Dative-Locative case. It has been preserved as a productive form only in Old Akkadian, and as a survival—in the later stages of Akkadian,<sup>13</sup> in Ancient Southern Peripheral Semitic, in Ugaritic, and in Hebrew.<sup>14</sup>

The "Absolute form" deserves a more detailed discussion. The stress in the "Absolute form" could differ in position and intensity according to the place of the noun in the sentence,

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<sup>11</sup> Thus, in Bedawye the Genitive *-i*, *-i* expresses not only possessive but also locative-ablative and instrumental relations.

<sup>12</sup> There may have been no Nominative-Locative in Egyptian, nor an Accusative. Thus, only two forms were distinguished—a *status rectus*, probably corresponding to the Semitic Genitive, and an abbreviated form, probably corresponding to the Semitic *status indeterminatus* and *constructus*. See below.

<sup>13</sup> As the prepositions, almost without exception, are of nominal origin in Semitic, they are invariably construed with the Genitive, and only very seldom pleonastically with the Locative.

A separate problem is the absence of an Accusative in the Plural in Semitic. The direct object of the transitive verb is in the Plural expressed by the Genitive (General Oblique) case. According to our hypothesis, as there was no *-a*-form in the Plural of the Absolute case, no special form for the Accusative could branch out from it. When the contrast Nominative: Accusative developed, the requirement for a Plural form for the Accusative as a new oblique case was satisfied by using the Genitive which already functioned as a semantically broad oblique case. However, it is interesting to note that the Dative-Locative was also apparently used only in the Singular.

<sup>14</sup> The locative suffix Ugar. *-ah*, Hebr. *-ā* has until lately been regarded as *Accusativus loci*, but in this case the *-h* in Ugaritic is unaccountable (E. A. Speiser).

i. e., depending upon whether the noun stood separately (in apostrophe, in enumeration, or as a predicate), or was determined by an attribute; the stress conditions differed also depending upon the attribute being a noun or a pronominal enclitic. Later all this led to diverse phonetic changes. In the same way the noun in the Genitive could experience different changes depending upon whether it was determined by another noun as attribute, or the attribute was a pronoun, or it had no attribute at all. In connection with this, there developed in Semitic a system of states of the noun:

*Status rectus*—the noun in its complete form with a case-ending [thus, in Old Akk. N. *kalb-u(m)*, A. *kalb-a(m)*, G. *kalb-i(m)*, D.-L. *kalb-is* 'dog'; N. *sinniš-t-u(m)*, A. *sinniš-t-a(m)*, G. *sinniš-t-i(m)*, D.-L. *sinniš-t-is* 'woman'; Pl. N. *kalb-ū*, Obl. *kalb-ī*; N. *sinniš-ā-t-u(m)*, Obl. *sinniš-ā-t-i(m)*]<sup>15</sup>.

*Status praedicativus*—the noun in its case-free, or Absolute form functioning as predicate [thus, Old Akk. '*kal(a)b* or \*'*kalba*<sup>16</sup> '(is a) dog'; '*sinniš-(a)t* '(is a) woman'; Pl. '*kalb-ū*, '*sinniš-ā*].

*Status indeterminatus*—the noun in its case-free, or Absolute form without syntactic connections; usually it coincided with the *Status praedicativus* [thus, Old Akk. '*kal(a)b* 'dog'; '*šarr-at* 'queen' (but '*sinniš* 'woman')].

*Status constructus*—the noun determined by another noun as attribute or by an attributive clause. The determined noun can be (1) in the Direct case (which here includes the Accusative); its form coincides with the *Status praedicativus* or *indeterminatus*; or (2) in the Genitive (a special construct form of the Genitive) [thus, Old Akk. Dir. '*kal(a)b* '*šarr-i(m)* 'the dog of the king', G. '*kalb-i* '*šarr-i(m)*; Dir. '*šarr-at* *ē'kall-i(m)* 'the queen of the palace', G. '*šarr-at(-i)* *ē'kall-i(m)*; but *sinniš-t-i* *ē'kalli(m)* 'the woman of the palace' both in the Direct case<sup>17</sup> and in the Genitive].

*Status pronominalis*—the noun as determined by an enclitic pronominal attribute. The form was originally very nearly the same as in *Status constructus* but with a change in stress; a certain class of nouns has in Old Akkadian the complete system of declension in *Status pronominalis*, with all case-forms; thus, Old Akk. Dir. *ka'l(a)b-su* 'his dog', G. *ka'l'b-ī-su*; Dir.

<sup>15</sup> The Loc. Pl. fem. *sinniš-ā-t-is* is a rare form, and possibly secondary.

<sup>16</sup> The latter form occurs only in proper names (which are often indeclinable in Akkadian) but also in borrowings in Sumerian, dating from a period earlier than the most ancient Old Akkadian texts.

<sup>17</sup> In the Direct case the *-i*-ending has probably no phonemic significance, and the form is to be read '*sinniš-t-ə* || *sinniš-t* (but G. *sin'niš-t-i*)?

*sinni'sassu* < \**sinni's-(a)t-su* ('his woman'), G. *sinniš-'t-š-su*; *kalū-sunu* 'their totality'; Acc. *kalā-sunu*, G. *kalī-sunu*.

After the external vocalic inflection had been dropped at the Middle stage, the *Status rectus*, *praedicativus* and *indeterminatus* coincided in the so-called *Status absolutus*.<sup>18</sup> Because of the diverging stress conditions, the *Status absolutus* is distinguished from the other states by the absence of contraction; thus, in Hebrew the forms \**hakam*- 'wise man', \**kalb*- 'dog', \**malk-at*- 'queen' result in the following: *St. abs.* *ḥā'kām*, *'kālāb*, *mal'kā*; *St. constr.* *ḥ<sup>a</sup>'kam*, *'kālāb-*, *mal'kaṭ*; *St. pron.* (1) with the possessive pronoun of the 3rd p. Sg.:<sup>19</sup> *ḥ<sup>a</sup>'kām-ō*, *kal'b-ō*, *malkā't-ō*; (2) with the possessive pronoun of the 2nd p. Pl.:<sup>20</sup> *ḥ<sup>a</sup>'kam<sup>(e)</sup>-'kām*, *kalb<sup>(e)</sup>-'kām*, *malkaṭ<sup>(e)</sup>-'kām*, etc.

A difference between the states of the noun certainly existed in Egyptian,<sup>21</sup> and probably in the other Ancient and Middle Semito-Hamitic languages as well.

A specific characteristic feature of Semitic is the so-called "mimation" or "nunation" (*tanwīn*). It consists in adding the ending *-m(a)* or, in other languages, *-n(a/i)* to the forms of the *Status rectus*. It seems that originally this ending had a determinative force of the type of a definite article,<sup>22</sup> and therefore was always absent in the *Status constructus* and *Status pronominalis* (since here the noun was already determined in another way), as well as in the Absolute form (the *Status indeterminatus* and *praedicativus* which by their function itself were indeterminate). But later the determinative force of the mimation/nunation faded (thus already in Old Akkadian where all forms of the *Status rectus* are automatically followed in the Singular by mimation).<sup>23</sup> In view of the obliteration of the determinative function of the mimation/nunation, a new definite article developed in Ancient Arabic and Southern Peripheral,<sup>24</sup> so that the forms with the mimation/nunation

<sup>18</sup> In Arabic, on the contrary, the case-free forms disappeared. Due to the absence of strong stress, the only difference between the construct and the absolute states consists here in absence of nunation (see below) in the former and its possibility in the latter.

<sup>19</sup> And other pronominal enclitics of the same type.

<sup>20</sup> Masculine and feminine.

<sup>21</sup> States of the noun are preserved in Coptic.

<sup>22</sup> See J. Kuryłowicz, "La mimation et l'article en arabe", *Archiv orientální*, XVIII, 1/2, 1950.

<sup>23</sup> With the exception of some proper names.

<sup>24</sup> Arab. *al-* (< \**hal-*?), S. Periph. *-ān* (< \**hān*?). A new definite article developed also in the Middle Northern Central languages: Hebr. *ha-* (< \**han-*), Aram. *-ā* (< \**hā*?). An analogous article developed in Berbero-Libyan after the Middle stage (Libyan-Numidian) (probably in the form \**hā-*, Pl. \**hī-* for the masculine gender, \**tā-*, Pl. \**tī-* for the feminine, displacing the prefixed sign of gender, m. \**u-*, f. \**t-*). However, at present this article too has lost its determinative force, and the

came to be regarded as indeterminate (indefinite). At the same time, the mimation /nunation remained impossible in the *Status constructus* and *pronominalis*; thus, there developed a rule that any noun which is in any way determined (by article, by another noun, or by a possessive pronoun) has no mimation /nunation, any noun not so determined has it.<sup>25</sup> In the other Semitic languages the mimation /nunation either gradually disappeared (thus in Akkadian), or was preserved without any particular semantic function in the *Status absolutus* of the Plural (in the languages of the Northern Central group).

prefixes m. *a-* (more seldom *i-*), f. *ta-* (*ti-*), Pl. m. *i-*, f. *ti-* are regarded as part of the word itself or, more precisely, as a sign of the so-called *Status liberus*, as opposed to the *Status annexus*, the form of the noun as attribute or as subject of a verb when following the predicate in the sentence; in the *Status annexus* the original signs of gender are preserved: St. lib. m. *a-gallid* 'king', Pl. *i-gallid-an*, f. *ta-gallid-t*, Pl. *ti-gallid-in*; St. annex. m. *u-gallid*, Pl. *u-gallid-an*, f. *t(ə)-gallid-t*, Pl. *t(ə)-gallid-in*. However, the nouns which originally began with a now extinct consonant (*μ*, *i* and the consonants of the Series 8—10) have a constant vocalic Anlaut, qualitatively depending upon the lost consonant; this quality of the vowel is preserved both in the *Status liberus* and in the *Status annexus*; in most cases it does not change with number. The vowel of the former article does not as a rule influence this vocalic Anlaut, and in the *Status annexus* the sign of gender is naturally placed before the vowel in question.

Thus, in the *Status liberus* the nouns of this group begin in the masculine gender with *a-*, *i-*, or *u-*, and in the *Status annexus* with *\*μ-a-* > *μa-*, *\*μ-i-* > *i-*, *\*μ-u-* > *u-*; in the feminine gender the nouns of this group begin with *ta-*, *ti-*, or *tu-* in both states. In Libyan-Numidian the sign of Masculine gender of *Status annexus* was not represented in writing (if it did exist), and the *Status annexus* had a special suffix *-t*.

<sup>25</sup> There is in Arabic a certain class of nouns with diptotic declension without nunation (Nominative in *-u*, Genitive-Accusative in *-a*). Its origin is obscure, although it is certain that the diptotism is a secondary phenomenon. According to M. Liverani ("Antecedenti del diptotismo arabo nei testi accadici di Ugarit", *Rivista degli studi orientali*, 1963, № 2, pp. 131-160), the phenomenon originated in Northern Central Semitic. When the mimation was dropped in the 2nd millennium B. C., the Genitive of the widely used proper names and adjectives in *-ān-i*, *-īn-i*, *-ūn-i* coincided with the forms having the suffixed possessive pronoun of the 1st p. Pl. *-ni*, and therefore this form of the Genitive was displaced by the form in *-a* borrowed from the numerous class of indeclinable proper names with the ending *-a* of the Absolute form.

This Genitive in *-ān-a*, *-īn-a*, *-ūn-a* spread into the neighbouring Arabic dialects where the diptotism (N. *-u*, G., A. *-a*) was later extended to other nominal patterns of similar semantics; some of these patterns were later used for the *Pluralis fractus* (see below). Possibly a certain role was played, according to J. Kuryłowicz ("Le diptotisme et la construction des noms de nombre en arabe", *Word*, 7, 1951, p. 224), by the analogy with the diptotic declension of the nouns in the Plural of the "external" type.

In the other Semito-Hamitic languages there are no—or dubious—traces of mination / nunation in the Singular; but it is probable that such forms of the Plural as Berb. *-ən*, Tchad *-en*, *-una*, and possibly Berb. *-in*, as well as the Berber relic of the Dual, *-in*, are derived from forms with nunation.

There were originally three numbers in Semito-Hamitic: the Singular, the Dual, and the Plural, but the Dual is not preserved as a productive form beyond the Middle stage, i. e., among the languages known to us it is found only in Semitic and Egyptian (suffix *-ā-* in the Direct, *-aḷ-* in the Oblique case,<sup>26</sup> with a mination / nunation or without it). There are relics in New Semitic and in Berber dialects (Šilḥ *māraḷ-in* 'twenty', where *-in* < \**-ēn* < \**-aḷ-naḷi*).

In the Dual and Plural the noun was usually diptotic, only a Direct and a general Oblique (Genitive-Accusative) case being differentiated.

There are four main primary types of expressing the Plural in Semito-Hamitic:

I. Affixation of *-ā-*<sup>27</sup> or *-ān-*. The latter affix may be regarded as *-ā-* plus nunation, or be related to the individualizing suffix *-ān-* (Plural of individual units, e. g. in Akkadian).

II. Lengthening of the vowel of case-inflection. The first two types have in common the feature of expressing plurality by vowel length.

III. Reduplication of the stem.

IV. Change of vocalism of the stem (internal inflection)—the so-called *Pluralis fractus* which is usually regarded as a characteristic feature of Semito-Hamitic.

Let us now discuss each type in itself.

I) Expression of the Plural by Affixation of *-ā-* or *-ān-*.

The suffix *-ā-* is placed between the stem and the suffix of the gender (whenever the latter is present), or at any rate, before the case-ending. If there is a mination/nunation, the latter is placed before the case-ending in the masculine and after it in the feminine gender.

#### Subtype 1

Sg. m. (- <i>u-</i> )	Pl. m. <i>-ā-u-</i>
Sg. f. <i>-t-</i>	Pl. f. <i>-āuāt-</i> (by analogy for * <i>-ā-t-</i> )

<sup>26</sup> In Egyptian there is only one form of the Dual, etymologically corresponding to the Semitic Oblique case (*-y-*, placed after the sign of gender).

<sup>27</sup> May not this *-ā* be the result of a lengthening of the vocalic Anslaut in *-a* of the Absolute form?

Occurs in Egyptian.<sup>28</sup> Case-endings unknown.

### Subtype 2

		with mimation	without nunation
Sg. m. Nom. $-u(-m/n)$	}	Pl. m. Dir. $-\bar{a}-n-u$	$-\bar{a}-u$
Acc. $-a(-m/n)$			
Gen. $-i(-m/n)$		Obl. $-\bar{a}-n-i$	$-\bar{a}-i$
Sg. f. Nom. $-(a)t-u(-m/n)$	}	Pl. f. Dir. $-\bar{a}-t-u(-m/n)$	$-\bar{a}-t-u$
Acc. $-(a)t-a(-m/n)$			
Gen. $-(a)t-i(-m/n)$		Øbl. $-\bar{a}-t-i(-m/n)$	$-\bar{a}-t-i$

Occurs in the most archaic of the Semitic languages: in Akkadian (Plural of individual units  $-\bar{a}-n-u$ ,  $-\bar{a}-n-i$  only; the forms  $*-\bar{a}-u$ ,  $*-\bar{a}-i$  do not exist), and in Southern Peripheral (theoretically the entire paradigm),<sup>29</sup> and also in Aramaic;<sup>30</sup> of the non-Semitic languages it occurs in Berber (only in the masculine gender: ending  $-an$ ), and in Cushitic (in Bedawye, masculine Plural endings  $-\bar{a}$ ,  $-\bar{a}n$ ; in Somali this type occurs also in the Plural of the feminine gender:  $-\bar{o}(d) < *-\bar{a}-t-u(?)$ ). It is possible that the Plural in  $-a$ ,  $-en$  in the Tchad languages also has its origin in this type: Hausa *ɲaro* 'boy', *ma-keri* 'smithy', Pl. *ɲara*, *ma-kerā*; Logone *marar* 'breast', Pl. (or, originally, Dual ?) *marar-en*. The Hausa Plural of the feminine nouns in  $-\bar{t}a$  and  $-ta$  may also belong here (*hanɲa* 'road', Pl. *hanɲ-oɲi*; *tuta* 'banner', Pl.  $*tut-oti > tut-oɲi$ ), if the endings in question could be proved to be derived from  $*-oti < *-\bar{a}-t-i$ . Cf. in the Southern Tchad language Bade: Pl. m.  $-n$ , Pl. f.  $-t$ ,  $-\bar{e}t$ .

<sup>28</sup> The Berbero-Libyan Plural endings, m.  $-(a)uən$ , f.  $-(a)uīn$  are probably of secondary origin. According to A. Basset, they were originally formed only from stems ending in  $-u$  which is lost in the Singular (e. g., *a-məksa* 'shepherd'  $< *a-məksay$ , Pl. *i-məksay-ən*, cf. f. *ta-məksay-t* 'shepherdess', Pl. *ti-məksay-in*), and it was only later that this type was extended to other stems by analogy. It is also probable that the Aramaic Plural forms in  $-\bar{a}uāt(-\bar{a})$  are secondary, since they are rare in the oldest dialects.

<sup>29</sup> The picture is obscured by certain dialectal and phonetic phenomena.

<sup>30</sup> Already in the Old Aramaic dialects (early Middle Stage) only the forms of the Oblique case of the Plural are preserved (*St. absolutus* of the masculine nouns has a plural of Type II):

<i>St. abs.</i> : Pl. m. $-\bar{I}n < *-\bar{I}-na$	Pl. f. $-\bar{a}n$ (by analogy)
<i>St. constr.</i> : » $-\bar{e} < *-\bar{e}-i$	» $-\bar{a}-t$
With the article: $-a\bar{I}\bar{I}\bar{a} < *-\bar{a}-\bar{I}-h\bar{a}$	» $-\bar{a}-t-\bar{a} < *-\bar{a}-t-h\bar{a}$

However, one of the most ancient Aramaic dialects, the Ya'udī, has also preserved a form of the masculine plural in the Direct case without nunation:  $-w$ , read  $*-\bar{a}-u$ .

### Subtype 3

Infixation of the element *-ā-* into the stem: Berb. Kabyle *a-sərdun* 'mule', Pl. *i-sərdan* (by analogy with the Plural ending *-an* < \**-ān*); then also in words not ending in *-n*: Berb. *a-bərnus* 'burnouse' (< Lat. *burrhus*), Pl. *i-bərnas*.<sup>31</sup> This type is very productive in Berbero-Libyan, Cushitic, and in the Tchad languages [Bed. *'or* 'son', Pl. *'ar*; Som. *bēr* 'liver', Pl. *bērar*; Logone *sin(i)* 'tooth', Pl. *san*; Hausa *kirg(i)* 'skin', Pl. *kirag(a)*].<sup>32</sup> This internal inflectional type of expressing the Plural must be differentiated from the *Pluralis fractus* proper, which will be discussed below. Nouns in the Plural of this type may pleonastically also have an external plural ending, as e. g. Berb. *a-sif* 'river', Pl. *i-saff-ən*; Logone *ɲgun* 'stomach', Pl. *ɲguan-ən*; Hausa *sark(i)* 'chief', Pl. *sarak-una*. According to J. H. Greenberg, the Northern Central Semitic Plural of the nouns of the patterns \**pars-*, \**pirs-*, \**purs-* also belongs here (Hebr. *'kālāb* < \**kalb-u* 'dog', Pl. *kālāb-īm* < \**kalāb-ī-ma*).

II) Expression of the Plural by Lengthening of the Case-Ending.

This type occurs only with masculine nouns in languages which had no specific suffix characterizing the masculine gender (Semitic, Tchad, possibly Berbero-Libyan). In this type the infixation of *-ā-* before the suffix of the feminine gender is preserved.

Sg. m. Nom. <i>-u(-m/n)</i>	Pl. m. Dir. <i>-ū(-m/na)</i>	
Acc. <i>-a(-m/n)</i>	}	Obl. <i>-ī(-m/na)</i>
Gen. <i>-i(-m/n)</i>		
Sg. f. Nom. <i>-(a)t-u(-m/n)</i>	Pl. f. Dir. <i>-ā-t-u(-m/n)</i>	
Acc. <i>-(a)t-a(-m/n)</i>	}	Obl. <i>-ā-t-i(-m/n)</i>
Gen. <i>-(a)t-i(-m/n)</i>		

Occurs in all Semitic languages (Akkadian has not preserved the mimation in the masculine Plural, the Northern Central languages — in the feminine Plural). The Plural endings *-una* and perhaps *-en* in the Tchad languages, and *-ən* in Berber probably belong here too.<sup>33</sup>

<sup>31</sup> Thus in both genders: *ta-sərdun-t* 'she-mule', Pl. *ti-sərdan*.

<sup>32</sup> For a correct appraisal of Tchad, particularly Hausan, forms it must be borne in mind that here in most cases a consonantal Auslaut is impossible and the vocalic Auslaut is often etymologically redundant.

<sup>33</sup> It is more difficult to explain the Berber feminine plural in *-in*. A. Basset has drawn attention to several data which seem to prove that both this ending and the ending *-ən* were not originally confined to one gender. The contrast between *-ən* as masculine and *-in* as feminine is, according to A. Basset, a later development. The data of Libyan-Numidian show that at the Middle Stage the Plural masculine ending was *-n*, probably to be vocalized as \**-ān(i)*, \**-ān(a)*, and the Plural feminine

### III) Expression of the Plural by Reduplication of the Stem.

The archaic type of expressing the Plural by a complete or partial reduplication of the stem is confined mainly to the Tchad and, to a lesser extent, the Cushitic languages (e. g. Hausa *dambe* 'struggle', Pl. *dambadambe*; *magana* 'word', Pl. *maganganu*; *kofo* 'door', Pl. *kofofi*; Kaffiço *bāk-ō* 'cock', Pl. *bākik-ō*; cf. Bed. *hinin kassān sanasanā-ba* 'we all brothers are').

### IV) *Pluralis Fractus*.

This type of expressing the Plural by means of internal inflection is the most usual in Arabic and in Southern Peripheral Semitic, and from the formal point of view, can also be said to be widely used in Berbero-Libyan, in Cushitic, and in the Tchad languages (Arab. *kalb-* 'dog', Pl. *kilāb-*; *qalb-* 'heart', Pl. *qulūb-*; *baḥr-* 'sea', Pl. *'abḥār-*; *ma-rkaz-* 'centre', Pl. *ma-rākiz-*, and many other subtypes; Berb. *a-gadir* 'fort', Pl. *i-gudar*; *ta-mazir-t* 'kitchen-garden', Pl. *ti-mizar*; *a-fus* 'hand', Pl. *i-fass-ən*; Kabyle *a-dugguāl* 'kinsman by marriage' Pl. *i-dul-an*; *ta-sir-t* 'mill', Pl. *ti-sjar*; *a-gənduz* 'calf', Pl. *i-gundjaz*; Cush. Bed. *ba'e'lūk* 'cloud', Pl. *'bā'lek*; *fe'tūr* 'breakfast', Pl. *fi'tir*; *eb'rik* 'coffee-pot', Pl. *'ebrik*; *kām* 'camel', Pl. *kaṃ*; Tchad Hausa *'akuja* 'goat', Pl. *'ayakaj*; *sirdi* 'saddle', Pl. *siradda*).

These forms are not uniform in their origin. The possibility of their existence and widespread use is in all cases caused by the fact that the internal inflectional change of vocalism was generally the most productive and customary method of inflection and word-formation in Semito-Hamitic. However, the ways of formation of the individual types of internal inflection expressing the Plural were different. One of the ways, as we have seen, was the development of the infixation of *-ā-* from suffixation. Other types can be explained as a result of contraction and other phonetic changes under the influence of stress, or as a result of *Systemzwang*.<sup>34</sup>

Still, there are enough types of the *Pluralis fractus* which cannot be explained in this way. However, in spite of their

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ending was *-tn*, probably to be vocalized *\*-ātin*; *-n* in this form is perhaps due to analogy with the masculine gender. Later—as a result of further unification by analogy?—there arose the modern juxtaposition of Pl. m. *-an*, *-ən*: Pl. f. *-in* (< *\*-ēn* < *\*-āhin* < *\*-ātin*?).

<sup>34</sup> Thus, the Berber type *ta-mazir-t*, Pl. *ti-mizar* can probably be explained by infixation of *-ā-*: *\*ti-mazjar-* > *ti-mizar*, cf. Kabyle *ta-sir-t*, Pl. *ti-sjar*; the Berber Kabyle type *a-dugguāl*, Pl. *i-dul-an* is the result of contraction (*\*hā-tappūāl* > *\*ā-tappūāl* > *a-dugguāl*; Pl. *\*hī-tappūāl-ān* > *\*ī-tappūāl-ān* > *i-tūl-ān* > *i-dul-an*); the *Pluralis fractus* in Kabyle *a-γəgguad* 'garden', Pl. *i-γəgguda* can be explained by false analogy and the attempt to preserve the consonantal skeleton *\*γgd*; but *-ggū-* is here really < *\*-gu-*, and the root is *\*kūd*, not *\*γgd*, hence the variant Plural *i-γud-an*, of the same type as *i-dul-an*). Many cases of *Pluralis fractus* are caused by shift of the stress which, however, in itself requires an explanation (thus in Bedawye).



great frequency in the Semito-Hamitic languages, one doubts their Common Semito-Hamitic origin. Thus, the northern Semitic languages, and among them the most archaic Akkadian, have practically no cases of *Pluralis fractus*.<sup>35</sup>

It is characteristic of the *Pluralis fractus* that there is no regular morphological relationship between the pattern of vocalism of the Singular and that of the Plural.<sup>36</sup> The *Pluralis fractus* is mainly a lexical, not a morphological category.

Neither was the *Pluralis fractus* much in use in another archaic language, the Egyptian. Of all Ancient Semito-Hamitic languages known to us it is only in Arabic and in Southern Peripheral Semitic that the *Pluralis fractus* is really predominant; in the latter it is only the types \*'afrās- and \*'afrūs- that are frequent; the other types are comparatively rare. But Arabic, though classed as Ancient Semitic on the strength of the good state of preservation of the old phonological structure and the external inflection,<sup>37</sup> is much farther from the Ancient type in its general grammatical structure—even compared to the Middle Northern Semitic languages.<sup>38</sup> If we assume that the Arabic *Pluralis fractus* is a Common Semito-Hamitic feature, then its loss in such most archaic languages as Old Akkadian and Old Egyptian seems unaccountable.

Furthermore, though the principle of formation of the *Pluralis fractus* is similar in all Semito-Hamitic languages, its forms in each individual case are different.

According to the common opinion of Semitologists, the Arabic *Pluralis fractus* originated in the following way. Under

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<sup>35</sup> In these languages it occurs in extremely rare, unique cases, as in Akk. 'alak-t- 'way', 'mode of life, behaviour', Pl. 'alkak-ā-t- (only in the figurative sense); Hebr. šūk 'street', Pl. šəṣṣāk-īm (after the pattern of kəṣṣab-īm, see above; a case of remodelling of a biconsonantal root after the pattern of the triconsonantals!). The cases of change of vocalism in the different states of the noun under influence of stress, very common in Hebrew, must also be excluded.

<sup>36</sup> Though there do exist certain trends of usage in grouping the patterns of the Plural according to the semantically determined patterns in the Singular. The reason is that the collective nouns from which the types of *Pluralis fractus* are derived were themselves semantically determined. See A. S. Lekiaschwili, *Zur Bildung des gebrochener Plurals im Arabischen*, «Труды XXV Международного конгресса востоковедов», II, Москва, 1963.

<sup>37</sup> The reason for this is the absence of a strong expiratory stress in Arabic which impedes the development of contractions and of elisions of vowels. This is also the reason why Arabic alone has a metric versification while the Northern Semitic languages as well as Egyptian had a stress versification.

<sup>38</sup> Thus, in Arabic (and in the other Central Semitic languages) there has developed a new type of finite verbal forms unknown to Common Semitic, and even a sort of a Future tense completely foreign to other Semitic languages at the Ancient and the Middle Stage.

the conditions of the most widespread usage of internal vocalic inflection there developed numerous patterns of vocalism of words from one and the same root, and in many cases these patterns served to form nouns with the semantic function of generalization, collectivity, etc., which could be opposed to semantically parallel nouns formed from the same root after other patterns with the semantic function of denoting singleness, indivisible units, etc. Such pairs of nouns with the sense, respectively, of singleness and collectivity began to be opposed as Singular and Plural,<sup>39</sup> and this usage was extended by analogy to other cases, becoming predominant in Arabic. It is no accident that the forms of *Pluralis fractus* are in Arabic construed as feminine nouns in the Singular. Some of the patterns of the Arabic *Pluralis fractus* are known in the other Semitic languages as patterns expressing various kinds of generalization.<sup>40</sup>

It is impossible to reconstruct not only Common Semito-Hamitic but even Common Semitic forms of the *Pluralis fractus*. It is obvious that its different forms have developed from similar causes but in different ways and at different times, though always comparatively late.<sup>41</sup>

The occurrence of *Pluralis fractus* in the Tchad languages may perhaps be regarded as evidence of a wider use of internal inflection in these languages at an earlier period.

Thus, summing up, we may classify the method of reduplication for expressing the Plural as typical of the Tchad and partly the Cushitic languages; the method of affixation of *-ā-* (*-ān-*) as typical of all branches [Subtype 1, with the infixation of *-ā-* before the suffix of the gender both in the masculine (*-ā-ū-*) and in the feminine (*-āyat- < \*-ā-t-?*), being characteristic of the Egyptian branch, and Subtype 3, with infixation of *-ā-* into the stem, of the Berbero-Libyan, the

<sup>39</sup> A complete analogy is presented by the use in Akkadian of the suffix of *nomina abstracta*, *-ūt-*, to form the Plural of adjectives.

<sup>40</sup> Cf. the pattern *\*paras-t-*: Akk. *tāb-t-* 'the good' (noun), *ṣabar-t-* 'a camp of foreigners' (=generalization) ~ Eth. *nagaš-t-*, Pl. of *nagūš* 'king'; pattern *\*pirās-*: Arab. *kitāb-* 'writing, book' from the verb *ktb* 'to write' (=plurality of a phenomenon) ~ Arab. *kilāb-*, Pl. of *kalb-* 'dog'; pattern *\*ša-prās-*: Akk. *ša-pšāk-* '(the greatest) difficulty', 'predicament'; *ša-rbāb-* 'enfeeblement', 'paralysis', *ša-lbāb-* '(very) furious' (=possession of a quality in the highest degree) ~ Arab. *'a-bḥār-*, Pl. of *baḥr-* 'sea'.

<sup>41</sup> In the Tchad and the Cushitic languages there also occur other types of the Plural, probably due to interaction with a substratum, e. g. Hausa *\*ba-hause* 'Hausan', Pl. *hausa-ya*, the later form being probably a variant of the Common Semito-Hamitic *nisbah* (relative adjective expressing ethnic or local extraction) originally not differentiated as to number, as is also the case in Akkadian of the Middle Stage; the differential form of the Singular is a borrowing.

Cushitic, and the Tchad branches]; and the method of lengthening the vowel of the case-ending in the masculine gender as typical of the Semitic, but also of the Tchad branch; and possibly, at an earlier stage, of Berbero-Libyan. The *Pluralis fractus* develops in all branches as a secondary phenomenon and is absent from the more archaic Semito-Hamitic languages.

## THE PRONOUN

The group of personal pronouns is represented in Semito-Hamitic (1) by independent pronouns, always emphatic and bearing a logical stress, and (2) by affixed, or enclitic pronouns. The pronominal affixes expressing the subject of a verbal predicate are in all Semito-Hamitic languages (with the exception of the Tchad branch) an integral part of the finite verbal form; they will be discussed in the chapter on the verb. The pronouns expressing the object are, on the contrary, not a necessary part of the verbal form; although they are extremely important for the proper understanding of the verbal structure, and we will, accordingly, again deal with them below, it is more expedient to discuss them in connection with the system of personal pronouns as a whole.

With the above reservation, the pronouns of the personal group in Semito-Hamitic can be semantically and formally subdivided into the following categories:

Independent	Affixed
(1) Personal pronouns of the Direct case	(1) [Affixes expressing the subject in the finite verbal form]
(2) Possessive pronouns	(2) Possessive pronouns suffixed to noun or preposition
(3) Personal pronouns expressing the direct object	(3) Pronouns expressing the direct object, suffixed to verb
(4) Personal pronouns expressing the indirect object	(4) Pronouns expressing the indirect object, suffixed to verb

In most cases the independent possessive pronouns have not been preserved, at least not in their original form: we mostly encounter secondary formations. The independent personal pronouns of the indirect object have been preserved only in Akkadian (Ancient stage); here they differed from the respective pronouns of the direct object only by the case-ending *-š* instead of *-t*, so we can leave them out of consideration

for the time being. Again, it is only in Akkadian that the suffixed pronouns of the indirect object differ materially from those of the direct object.

Before discussing the Semito-Hamitic pronouns of the personal group as a system we must briefly review the very special development which took place in Egyptian. Owing to the predominance of an originally possessive construction in the verbal sentence (see below),<sup>42</sup> the subject of the verb of action is expressed in Egyptian not by the pronoun of the Direct case but by the suffixed possessive pronoun. One finite form only—the originally intransitive “Pseudo-Participle”, better to be termed Qualitative-Stativ, requires a direct (“nominative”) and not a possessive construction; as a result, its subject is expressed by a verbal ending being a relic of the personal pronoun of the Direct case.

A. In the different branches of Semito-Hamitic the independent personal pronouns can belong to two different types.

(I) In one of the types the non-affixed personal pronoun of the Direct case has in the 1st and 2nd persons a prefix *'an-* of an emphatic-demonstrative character.<sup>43</sup> This is the type of the pronouns in question in Semitic and Cushitic.

In Egyptian, this demonstrative element *'an-* has been preserved as a separate particle (in the form *in*; introduces a nominal subject with a participial predicate); we encounter it also in the 1st person of the so-called “Independent personal pronoun” which expresses the subject with a nominal predicate. However, for the other persons the element *in* is here replaced by another demonstrative element, *nt-* (see below).

The same is the case in Berber (1st and 3rd persons),<sup>44</sup> see Table V.

(II) The other type comprises both the pronouns expressing the subject and those expressing the object. To this type belong, in Semitic (Akkadian), the independent pronouns expressing the object, in Egyptian, the so-called “Ancient Independent pronouns” expressing the subject with a nominal predicate, as well as the so-called “Personal Dependent pronouns” expressing the subject in certain constructions with adverbial, infinitival, and Qualitative-Stativ predicates, and the object with the other verbal forms; and in Hausa, both the

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<sup>42</sup> Of course, it was no longer felt as possessive by the authors of the texts which have come down to us.

<sup>43</sup> This *'an-* apparently is not derived from *\*han-*, and must not be connected with this demonstrative pronominal stem which is very common in Semitic, cf. Akk. *'ann-i-* < *\*hann-i-*, Hebr. *hinne* < *\*hann-i*, and also the article *ha-* < *\*han-(?)*, etc. It seems that *'*, *h-* and *s-* were different pronominal stems.

<sup>44</sup> The 2nd person evidently belongs to Type II.

Personal Pronoun in the Direct Case, Type I

Semitic (Reconstructed)	Cushitic (Somali) <sup>1</sup>	Egyptian	Berber
Sg. 1 p. *'an-āku/ī <sup>2</sup> , *an-ī 2 p. m. *'an-ta (<*'an-ka?) 2 p. f. *'an-ti 3 p. m. *gū('a) 3 p. f. *sī('a) or *sī('a)? Pl. 1 p. *naḥna/u 2 p. m. *an-tumu (<*'an-kumu?) 2 p. f. *an-ti(n)na 3 p. m. *ḡumu 3 p. f. *sī(n)na or *sī(n)na?	ana, a'ni } ada, a'di (<*'atta, *atti) ū (<*'hū), uḥsa <sup>3</sup> aḳ (<*'haḳ?), iḳḳa (<*'hiḳa?) <sup>3</sup> anna (Excl.), inna (Incl.) } aḳḳin } aḳ	in-k nt-k nt-ī nt-f nt-s in-n } nt-īn } nt-sn	nki, nakk etc. kai, kiḳi etc. <sup>4</sup> kam, kimi etc. <sup>4</sup> nta, natta etc. ntō-t, natta-t etc. nəkunnə etc. kunnə etc. <sup>4</sup> kunəm-ti etc. <sup>4</sup> nitni etc. nitən-ti etc. <sup>5</sup>

Notes: <sup>1</sup> In Bedawye the only forms of the primary type of the Independent personal pronoun which have been preserved are those of the 1st person: Sg. *anī*, Pl. *hānan*, *hanin*; the rest have been replaced by innovations. Although the forms of Somali which we have chosen for this table do not look very convincing on account of the considerable change in their phonetic appearance, their descent from pronouns of the same type as the Semitic is proved by the material of the other Cushitic languages, e. g. Agau (Bilin dialect): 1 p. *an-bā*, 2 p. *nti-bā* etc., with a demonstrative-emphatic *bā* ("I indeed, thou indeed").

<sup>2</sup> It seems that the form \*'(a)ku, without the emphatic element 'an-, also existed; cf. in the Southern Peripheral Mehri language: *hū* < \*ku.

<sup>3</sup> The second form is used with the article.

<sup>4</sup> These forms belong to Type II.

<sup>5</sup> -ti under the influence of the 2nd person feminine.

Table VI

## Personal Pronouns, Type II

	Semitic (Akkadian) <sup>1</sup>	Egyptian		Berber	Hausa	
	Pronouns of the direct object	"Old independent nouns"	"Personal dependent pronouns"	Pronouns of the Direct case	Pronouns of the Direct case	Pronouns of the direct object
Sg.						
1 p.	<i>lā-ti</i>	<i>wy<sup>2</sup></i>	<i>wy<sup>2</sup></i>	3	<i>ni<sup>5</sup></i>	<i>ni<sup>5</sup></i>
2 p. m.	<i>*ku'ā &gt; ku'ā-ti</i>	<i>lū-t</i>	<i>kw &gt; lū (*ku'ā &gt; lū'ā?)</i>	<i>kai, ki'i</i> etc. <sup>4</sup>	<i>ka'i</i>	<i>ka</i>
2 p. f.	<i>kā-ti</i>	<i>īm-t</i>	<i>īm &gt; īn (*kimi &gt; īm?)</i>	<i>kām, kimi</i> etc. <sup>4</sup>	<i>ke</i>	<i>ki</i>
3 p. m.	<i>su'ā &gt; šu'ā-ti</i>	<i>sw-t</i>	<i>sw (*su'ā?)</i>	3	<i>si</i>	<i>si</i>
3 p. f.	<i>šā-ti (gā-ti?)</i>	<i>st-t</i>	<i>sy (*šāc?)</i>	3	<i>i-ta</i>	<i>ta</i>
Pl.						
1 p.	<i>ni'ā-ti</i>		<i>n</i>	3	<i>mu</i>	<i>mu</i>
2 p. m.	<i>*kumu &gt; kunu &gt; ku-nū-ti</i>		<i>lū (*kunu &gt; lūnu?)</i>	<i>kunnə</i> etc. <sup>4</sup>	<i>ku (&lt; *kumu)</i>	<i>ku (&lt; *kumu)</i>
2 p. f.	<i>kinā-t &gt; kinā-ti</i>			<i>kunnə-ti</i> etc. <sup>4</sup>		
3 p. m.	<i>*sumu &gt; sunu &gt; šu-nū-ti</i>		<i>sn (*sunu?)</i>	3	<i>su (&lt; *sumu)</i>	<i>su (&lt; *sumu?)</i>
3 p. f.	<i>šinā-t (sinā-t?) &gt; šī-nā-ti</i>			3		

Notes: 1 The most archaic Old Akkadian forms.

2 The forms are etymologically obscure; one should expect \*ku or \*ka.

3 The pronouns of the 1st and 3rd person belong to Type I.

4 In some of the dialects these forms express the object.

5 Cf. Sem. 'an-i (Type I) or Sem. suffixed object-pronoun -ni?

pronouns expressing the subject and those expressing the object<sup>45</sup> (cf. Table VI).

If—as it seems to follow from Table VI—the personal pronouns of the Direct case could originally express both the subject and the object, then there arises the question, why and how did those Semitic pronouns develop which have the suffix *-t* and specially express the object? We must now recall that *-t* was originally the sign of the “socially passive” class of nouns. The Old Akkadian, Berber, and Hausa material gives us ground to suppose that the suffix *-t* was originally used with this class (feminine gender) only, while the appearance of *-t* in the masculine gender is a secondary phenomenon. In Egyptian, the pronouns formally coinciding with the Akkadian pronouns of the object (the “Old Independent pronouns”) alternate with the so-called “Independent personal” pronouns in expressing the logical subject of the nominal predicate. The pronouns expressing in Egyptian the object of the finite verb are the so-called “Personal Dependent pronouns” which also express the subject in abverbial and infinitival constructions. It seems that we have before us a case of bifurcation of one original paradigm of the type *\*wy*, *\*kw*, *\*ʔm-t*, *\*sw*, *\*sy-t* which, with minor divergences, is the same that we find in the most ancient form of Old Akkadian as the paradigm of the pronouns expressing the object.<sup>46</sup> Because in Akkadian the Ergative had already developed into a Nominative case, and thus the object of the transitive verb could no longer be expressed by the same case-form as the subject of the intransitive verb, this group of pronouns came to be regarded as expressing the object only, while the element *-t*, generalized to comprise the masculine gender, became in Akkadian a sign of the forms expressing the object in the pronominal system. The pronoun for the indirect object was now formed by analogy, through substituting the Dative-Locative ending *-s* for *-t* (however, not in all dialects of Akkadian). The emphatic *'an*-forms were reserved for the Nominative.<sup>47</sup>

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<sup>45</sup> In Somali the independent pronouns expressing the object are identical with the suffixed pronouns (Sg. 1 p. *ī*, 2 p. *ku*, 3 p. *ū*; Pl. 1 p. *na*, 2 p. *idin*, 3 p. *ū*).

<sup>46</sup> And, with prepositions, also the Genitive.

<sup>47</sup> In the Cushitic language Quara (a dialect of Agau) the pronouns expressing the direct and indirect object are also formed with the suffixes *-ti* (for the Accusative) and *-ši* (for the Dative). We are dealing here with a late phenomenon (this is proved by the forms of the pronominal stems themselves, which diverge considerably from the ancient prototypes), but it is parallel to the development in Akkadian. The origin of the ending *-ti* of the object-pronouns is probably similar to its origin in Akkadian; the ending *-ši* has probably developed by analogy

In contrast to this, in Egyptian the paradigm bifurcated: one variant still expressed the subject of the infinitival constructions and the object of the transitive verb; the other was for a time retained to express the subject of the nominal predicate. In this function it was later replaced by the emphatic, so called "Personal Independent pronoun" of Type I.

It is difficult to say, without more material from the Tchad languages, what was the line of development in that branch. The Hausa forms, both of the subject- and the object-pronouns, seem to be the descendants of the original non-emphatic forms (Type II), their differentiation probably due to phrase stress. The pronoun of the 1st person, *ni*, may be explained in several ways (as *\*an-ī*, or as connected with the suffixed form of the 1st person pronoun for the object, *-ni*).

More complicated is the picture in Berber. The existing pronouns seem to belong to a mixed paradigm, the 1st person (Sg. *nakk* or *nki*, Pl. *nəkkunnə* a. o.) belonging probably to Type I, the emphatic personal pronouns of the Direct case (*< \*an-ākī?*); the 2nd person (Sg. m. *kaɪ* or *kiji* a. o., Sg. f. *kəm* or *kimi* a. o.; Pl. m. *kunnə* a. o., Pl. f. *kunəm-ti*)—to Type II, the non-emphatic personal pronouns, and the 3rd person belonging to Type I but with the *-ti* of the feminine gender taken over from Type II (Sg. m. *nta* or *nətta* a. o., f. *ntə-t* or *nətta-t* a. o.; Pl. m. *nitni* a. o., f. *nitənti* a. o.).<sup>48</sup>

The existing distinction between subject-pronouns, object-pronouns (direct and indirect), and possessive pronouns seems to be secondary in Berber, the difference being only in stress and in the resulting changes. They all are derived from one and the same paradigm which looks as a result of contamination of two older paradigms.

B. The independent possessive pronouns are either of secondary formation,<sup>49</sup> or are the suffixed possessive pronouns joined to a demonstrative-relative pronominal particle (the *nota genitivi*, of which more below).

The suffixed possessive pronouns are in most Semito-Hamitic languages formally distinguished from the suffixed object-pronouns only in the 1st person Singular. However, Akkadian has three separate paradigms, i. e., for the possessive pronouns, for the pronouns of the direct object, and for those

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and in connection with the preservation (or the secondary development) of the Dative case in *-s*, *-š* in late Cushitic (it occurs in Central and Western Cushitic).

<sup>48</sup> To be reconstructed as from Sg. m. *\*nit-hu'ā*, f. *\*nit-hi'āti*; Pl. m. *\*nit-hunū/ī*, f. *\*nit-hināti*?

<sup>49</sup> In Akkadian they are formed from the suffixed forms by their separation from the noun and addition of nominal case-endings. In later languages we mostly find various innovations.



Suffixed Possessive Pronouns

Semitic (Reconstruction)	Egyptian <sup>1</sup>	Berbero-Libyan	Cushitic (Bedawye) <sup>2</sup>	Tchad (Hausa)
Sg. 1 p. * <i>-i</i> , * <i>-ia</i> [direct object * <i>-ni</i> , indirect object Akk. - <i>a(m)</i> , - <i>ni(m)</i> ]	- <i>y</i> (*- <i>ia</i> )	- <i>i</i> , - <i>ii</i> <sup>3</sup>	zero <sup>4</sup>	- <i>na</i> <sup>5</sup>
2 p. m. * <i>-ka</i> 2 p. f. * <i>-ki</i>	- <i>k</i> (*- <i>ka</i> ) - <i>t</i> (< *- <i>ki</i> )	- <i>k</i> - <i>m</i> (< *- <i>kim</i> ?)	- <i>ka</i> - <i>ki</i>	- <i>ka</i> - <i>ki</i>
3 p. m. * <i>-su</i> 3 p. f. * <i>-ša</i> (or * <i>-saʔ</i> ) [object Akk. - <i>šit</i> ]	- <i>f</i> (< *- <i>šū</i> -) - <i>s</i> (*- <i>sa</i> )	- <i>s/-t</i> (Lib.-Num. - <i>s</i> ) *- <i>s-t</i>	- <i>s</i> - <i>s</i>	- <i>sa</i> - <i>ʔa</i>
Pl. 1 p. * <i>-na/u/i</i>	- <i>n</i>	- <i>na</i> , - <i>na(ʔ)</i>	- <i>n</i>	- <i>mu</i>
2 p. m. * <i>-kumu</i> 2 p. f. * <i>-ki(n)na</i>	- <i>tn</i> (< *- <i>kina</i> )	- <i>um</i> (< *- <i>kum</i> ?) - <i>um-t</i> (< *- <i>kum-t</i> ?)	- <i>kna</i>	- <i>ku</i> (dial. - <i>kum</i> )
3 p. m. * <i>-sumu</i> 3 p. f. * <i>-ši(n)na</i> or * <i>-st(n)naʔ</i>	- <i>sn</i>	- <i>sən/-tən</i> - <i>sən-t/tən-t</i>	- <i>sna</i>	- <i>su</i> (dial. - <i>sum</i> ).

Notes: <sup>1</sup> In Egyptian these pronouns serve also to express the subject of the finite verb.

<sup>2</sup> The possessive pronouns in Somali, etc., have experienced very considerable changes.

<sup>3</sup> Zero with terms of kinship.

<sup>4</sup> The vowel of the suffix of the 1st person has been absorbed by the "Bindevokal" -*ū*- which in Bedawye is present with all suffixed possessive pronouns.

<sup>5</sup> From \**-n-ya*, cf. below on the *nota genitivi n-ʔ*

of the indirect object.<sup>50</sup> We shall not discuss them *in extenso* (cf. Table VII).

As can be seen from the above tables (if we disregard some local peculiarities, as well as phenomena resulting from analogies or phonetic development, and, in the case of pronouns expressing the subject and the object, from changes in the verbal construction), the system of the pronouns of the personal group can be said to be genetically identical in all five branches of Semito-Hamitic. The Tchad branch, as usual, has the greatest number of peculiarities. In contrast to the Tchad group, characteristic of Semitic and Cushitic is the existence of the Type I emphatic 'an-forms in the Direct case. In Egyptian and Berber the prefix 'an- (*in-*) alternates with *nit-* (*nt-*).

Certain peculiarities of the pronouns of the personal group can be explained by the history of the verbal structure; as, however, the attributive construction, in contrast to the verbal one, did not experience any great changes, the system of the possessive pronouns is nearly identical in all branches.

Besides the usual attributive construction (the governing noun in *Status constructus*, the attribute in the Genitive of the *Status rectus*, e. g. Akk. *kalab šarr-i-m* 'dog of the king'), another attributive construction is also widely used in Semito-Hamitic. It is a descriptive construction of the type: 'dog which (is) of the king', or 'dog, that of the king' (the governing noun in *Status rectus* plus a pronoun, the so-called *nota genitivi* or "*idāfah*", plus the attribute in the Genitive of the *Status rectus*, e. g. Old Akk. *kalb-u-m ū šarr-i-m*). The role of *nota genitivi* is played by a demonstrative-relative pronoun not coinciding with the 3rd person personal pronoun which, of course, is also demonstrative by origin.

According to the use of the different demonstrative pronouns in the role of *nota genitivi*, all Semito-Hamitic languages can be divided into those which mainly use a pronoun of the stem *d-* (> *d-* or *z-*; in Akkadian there is an irregular development \**d-* > *t-* > *š-*), and those which mainly use a pronoun with the stem *n-* (feminine *n-t-* > *t-*). To the first group belong the Semitic, to the second, the Egyptian and the Tchad

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<sup>50</sup> In Akkadian the suffixed pronouns of the indirect object have a separate form of the 1st person Singular (*-am*, *-nim*), and are also distinguished from those of the direct object by the element *-m* in all other forms of the Singular. In the Plural they originally coincided in form with the respective independent pronouns. In Berbero-Libyan there is also a formal distinction between the suffixed possessive pronouns and those expressing the direct and indirect object but the forms are closely related, and the distinctions consist mainly in the existence or absence of certain elements connecting the suffixed pronoun with the noun, the preposition, or the verb.

languages.<sup>51</sup> The Berbero-Libyan languages occupy an intermediate position, using both *n-* and, in certain cases, *d-*.<sup>52</sup>

Sometimes independent possessive pronouns are formed by the *nota genitivi* plus the suffixed possessive pronoun. Cf. in Hausa:

Sg.	1st p.	<i>nā-ya</i> <sup>53</sup>	<i>tā-ya</i> <sup>54</sup>
	2nd p. m. }	<i>nā-ka</i>	<i>tā-ka</i>
	2nd p. f. }	<i>nā-ki</i>	<i>tā-ki</i>
	3rd p. m. }	<i>nā-sa</i>	<i>tā-sa</i>
	3rd p. f. }	<i>nā-ta</i>	<i>tā-ta</i>
Pl.	1st p.	<i>nā-mu</i>	<i>tā-mu</i>
	2nd p. m. }	<i>nā-ku(m)</i>	<i>tā-ku(m)</i>
	2nd p. f. }		
	3rd p. m. }	<i>nā-su(m)</i>	<i>tā-su(m)</i>
	3rd p. f. }		

The same demonstrative element which has been employed as the *nota genitivi* has also been used to form the emphatic personal pronouns of Type I in Egyptian and Berber.

Besides the demonstrative pronouns from which the personal pronouns of the 3rd person are derived, and those which have been used for the *nota genitivi*, there exist other demonstrative pronominal stems, sometimes typical of one or several branches only (thus, *p-* for the Egyptian, *b-* for the Cushitic, *h-* for the Semitic and probably for the Berbero-Libyan branch, etc.).

An originally demonstrative character was probably also inherent in the pronominal stem *m-* (indication of remote and of invisible objects). In the Semito-Hamitic languages known to us, this pronominal stem accounts for the mimation and the prefix *ma-* in nominal word-formation, as well as the interrogative and indefinite pronouns (Semitic: Akk. *mann-* 'who?', *mīn-* 'what?'; Hebr. *mī* 'who?', *mā* 'what?'; Aram., Arab. *man* 'who?', *mā* 'what?'; Egyptian: *m* 'who?', 'what?'; Berbero-Libyan: Silh *mī(-t)* 'who?', *ma(-t)* 'what?'; Cushitic: Som. *ma* particle of interrogation, *ma-hei* 'what?'; Tchad: Hausa *me* (with the copula) 'what', and many others).

Some particles of negation and prohibition are of the same origin (Arab. *mā* etc., according to A. P. Riftin).

<sup>51</sup> There is a relative pronoun *da* in Hausa but it is not a *nota genitivi*.

<sup>52</sup> Both of these pronominal elements are widely and variously used in Berbero-Libyan; the *d-* element having, among others, a relative sense. In Libyan-Numidian *d-* seems to have been a conjunction, and *n-* the *nota genitivi*.

<sup>53</sup> When the object possessed is of the masculine gender.

<sup>54</sup> When the object possessed is of the feminine gender.

## THE VERB

The problem of the verb is one of the most difficult in Semito-Hamitic linguistics.

There is considerable variety in the verbal forms of the different Semito-Hamitic languages but characteristic of all known or reconstructible languages of the Ancient and Middle Stage is a formal distinction between the categories of transitive and intransitive,<sup>55</sup> as well as between the perfective and imperfective aspects. Reflected in the verbal conjugation is the person of the subject; the transitive verb may also have a suffixed pronominal element expressing the person of the object, of which we have spoken above.

The Semito-Hamitic verb had originally no tenses, although in the various grammars the term "tenses" is traditionally used for the "aspects". The terminology as applied to the individual Semito-Hamitic languages is extremely varied.<sup>56</sup> In order to facilitate comparison we will throughout use the terms "Perfective aspect" and "Imperfective aspect", although their contents may not be quite identical in the different languages.<sup>57</sup> Of importance for the analysis of the finite verbal forms are also the Imperative and the Jussive. The latter term will be taken as describing a form serving to express different categories of modality (request, assumption, possibility, conditionality, etc.). Below we shall specially discuss some of the verbal modal forms of more recent origin (particularly the Subjunctive mood).

Several Semito-Hamitic languages have a special finite verbal form for the intransitive predicate expressing a state (originally a nominal predicate). Thus, in Akkadian, any noun in the Absolute form (*Status praedicativus*), if it is predicate to a subject in the 1st or 2nd person, acquires affixes of a pronominal origin, expressing the person of the subject.

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<sup>55</sup> However, due to the absence of vocalization, it is not quite clear if there was a formal distinction between the transitive verb and the intransitive verb of action in Egyptian, apart from the fact that there existed a special form of "Qualitative-Stativ" ("Pseudo-Participle") which was intransitive in character and served to express a state.

<sup>56</sup> Thus, the existing grammars distinguish "Preterite" and "Present" in Akkadian, "Perfect" and "Imperfect" in the other Semitic languages, "Aorist" and "Preterite", or "Factum" and "Fiens" in Berber, "Perfect" and "Present" in Cushitic, a. s. o.

<sup>57</sup> There is an opinion (M. Cohen a. o.) that the verb in Semito-Hamitic was originally neutral as to aspects, and that the differentiation in the vocalism of the verbal stem according to aspect is secondary. Be this as it may, this differentiation had certainly taken place at the Common Semito-Hamitic stage. It can be compared to the differentiation between the Aoristic and the Presential stem in Common Indo-European.

Usually this form, termed Stative (or Permansive) is based on the Absolute form of the Participle of State, and although in principle it is neutral as to voice, it is mostly passive in practice (\**labiš(a)* 'is clothed', \**damik(a)* 'is good', \**maruš(a)* 'is sick', \**rapaş(a)* 'is wide'; \**lab(i)š-āku* 'am clothed', \**dam(i)k-āku* 'am good', \**mar(u)š-āku* 'am sick', \**rap(a)š-āku* 'am wide'). This does not mean that the Stative is a form of the Passive voice. The main function of the Stative is to express any lasting result of an action, so that e. g. \**šab(i)t-āku* means not only 'I am held' but also 'I have taken hold and am continuing to hold'. The Stative form of the Participle of State<sup>58</sup> is an integral part of the paradigm of any Akkadian verb. In Egyptian an analogous function is performed by the "Pseudo-Participle", or "Qualitative-Stative". In Berber its counterpart is the Qualitative, mostly formed from qualitative adjectives. A related function is performed in Bedawye by the adjectival predicate with a shortened form of the copula.

The Perfective and the Imperfective are characterized in Berbero-Libyan, in the more ancient stratum of Cushitic,<sup>59</sup> in the Tchad languages, and in Akkadian by a prefix-conjugation, and the Stative (where it exists)—by a suffix-conjugation.

<sup>58</sup> The usual types of verbal nouns and adjectives in Semito-Hamitic are (1) the *mašdar*, or *Nomen actionis sive status* (Infinitive), (2) the Participle of Action (which later became the Active participle when the Passive voice developed as contrasting to the Active voice), and (3) the Participle of State (Passive participle in languages with Passive voice). The patterns are: (1) Infinitive—Northern Semitic \**parās-* (innovations in Aramaic and Southern Semitic); Cushitic Bedawye *fedūg, dār*; Tchad Hausa *kira-ɣa* (intransitive also after the pattern *taf(i)-i-ja*); (2) Participle of Action—Common Semitic \**pāris-*, Ethiopic \**pa(r)rāsi*; Cushitic Bedawye *fādgi, fakik*; Tchad Hausa: prefixation of *ma-i-*; Participle of State—Akkadian \**pari/u/as-*, other Semitic languages: innovations mostly based on the pattern \**parū/īs-*; Cushitic Bedawye *fedg-a, dir-a* (*-a* < \**-aṣa*); Hausa *kirarre* < \**kirar-je*(?); in all cases there are innovations in Berbero-Libyan.

<sup>59</sup> The ancient type of verbal conjugation is in Cushitic in the process of being replaced by an innovation, i. e., conjugation by means of an auxiliary verb. Sometimes the vestiges of a prefix-conjugation of the auxiliary verb are clearly discernible, e. g. in Agau the verb *wās* 'to hear' is conjugated as follows (Imperfective): Sg. 1 p. *wās-a-kūn*, 2 p. m. and f. *wās-ra-kū* < \**wās-ta-kun*, 3 p. m. *wās-a-kū* < \**wās-ja-kun*, 3 p. f. *wās-ā-ti*; Pl. 1 p. *wās-na-kūn*, 2 p. m. and f. *wās-dāna-kū* < \**wās-ta-na-kun*?, 3 p. m. and f. *wās-āna-kū* < \**wās-ja-na-kun*. It is evident that this is the verbal noun *wās* plus a prefix-conjugation of the verb \**kūn*, 'to be'. However, in Bedawye there are many verbs which preserve the ancient type ("verbs of the strong conjugation"). In some of the New Semitic languages (especially in Neo-Syriac) the innovations have also become predominant, particularly in connection with the development of a system of tenses replacing the older system of contrasting only the Perfective and the Imperfective aspects.

tion. In all Semitic languages other than Akkadian only the Imperfective is conjugated by means of prefixes, while the Perfective is conjugated by means of suffixes after the pattern of the Akkadian Stative, the latter here being absent.<sup>60</sup> In Egyptian the Imperfective and the Perfective are expressed by verbal forms derived from a nominal possessive construction.

Thus, the prefix-conjugation of both the Imperfective and the Perfective is typical of four of the five branches of Semito-Hamitic while the prefix-conjugation of the Imperfective alone prevails only in a part of the languages of the Semitic branch (although in the greatest part), Egyptian having a verbal system different from all the other Semito-Hamitic languages. This enables us to regard the prefix-conjugation of both aspects as an ancient phenomenon, and the other verbal systems as innovations in individual language groups.<sup>61</sup>

Hence it is obviously to those languages which preserve the prefix-conjugation of both aspects that we must turn in order to find out the original type of the Semito-Hamitic verb. The verbal systems in all these languages are very similar. Leaving aside the Stative for the time being, we find that the conjugation of the Jussive, the Perfective, and the Imperfective is identical, i. e., the persons of the subject are expressed by the same prefixes in all three forms, the difference between them appearing not in the conjugation itself but in the vocalism of the respective stems. The conjugation is as follows:

	Sem. <sup>1</sup>	Berb.	Bedawye	Hausa <sup>2</sup>
Sg. 1 p.	'a-...	(zero)-...-aγ <sup>5</sup>	a-...	in
2 p. m.	ta-...	t-...-t	te-...-a	ka
2 p. f.	ta-...-ī	t-...-t	te-...-i	ki
3 p. m.	ia-...	i-...	i/ē-...	ia
3 p. f.	{ ia-... <sup>4</sup> ta-...	t-...	ti-...	ta

<sup>60</sup> However, the data of other Ancient Semitic languages (Ugaritic and Amorite) seem to prove that the absence of the Stative, and the prefix-conjugation of the Imperfective alone, are secondary phenomena.

<sup>61</sup> Another possible explanation of the difference between the Egyptian verbal system and that of the other Semito-Hamitic languages is that it had diverged from Common Semito-Hamitic before the latter had developed its verbal system. But as the Egyptian is connected by some lexical and grammatical isoglosses with the Northern Semito-Hamitic languages only (Semitic and Berbero-Libyan), it seems improbable that it could have diverged from Common Semito-Hamitic so early; it is more natural to regard Egyptian as having lost the prefix-conjugation in prehistoric times.

Pl. 1 p.	<i>na/i-...</i>	<i>n-...</i>	<i>ni-...</i>	<i>mu</i>
2 p. m.	<i>ta-...-ū<sup>3</sup></i>	<i>t-...-m</i>	<i>te-...-na</i>	<i>ku</i>
2 p. f.	<i>ta-...-ā/-na</i>	<i>t-...-m-t<sup>6</sup></i>		
3 p. m.	<i>ia-...-ū<sup>3</sup></i>	<i>(zero)-...-n<sup>7</sup></i>	<i>e-...-na</i>	<i>su</i>
3 p. f.	<i>{ ia-...-ā/-na ta-...-ā/-na</i>	<i>(zero)-...-n-t<sup>6</sup></i>		

Notes: <sup>1</sup> Reconstructed Common Semitic forms. In Akkadian those are the forms of the conjugation of the Perfective, the Imperfective, and the Jussive, in the other Semitic languages only of the two latter.

<sup>2</sup> In Hausa the person of the verbal subject is expressed by lexically independent pronouns preceding the verbal stem (or, more probably, by relics of the conjugation of an auxiliary verb with stem reduced to zero).

<sup>3</sup> In some of the Semitic languages *-na* is added to this form in the Indicative but is absent in the Jussive and the Subjunctive II.

<sup>4</sup> Judging by one of the Akkadian dialects, *ta-* was originally used when the subject not only belonged to the feminine gender but to the feminine sex as well. Later the forms *\*ia-* > *i-* and *ta-* gained predominance each in a separate dialect. A similar phenomenon seems to have been observed in Berbero-Libyan.

<sup>5</sup> The ending *-ay* must have been transferred from the conjugation of the Qualitative in connection with the Common Berber loss of the initial *'a-* (*\*'a-* > *\*a-* > zero). It is possible that the final suffixed *-t* in the 2nd person is of a similar origin.

<sup>6</sup> The suffix *-t* is here secondary, having developed by analogy.

<sup>7</sup> The prefix is here evidently lost though preserved in the Singular, due probably to a difference in the position of the ancient stress. It is possible that the form without a prefix is partly due also to the influence of the conjugation of the Qualitative. The form of the 3rd p. Pl. without the prefix occurs already in Numidian: m. *sk/n/* 'they built', f. *bzn* (meaning unknown). But in another form of the Feminine (Sg. or Pl.?) there occurs a prefix *t-*: *t-trb trb-tn*.

The difference between the three forms conjugated by means of prefixes is as follows (see Table VIII; the forms in the Table are reconstructed ancient forms; those which we regard as having developed at a later period are in brackets. The verbal roots are chosen arbitrarily and serve only *exempli gratiâ* to represent the pattern of vocalism).

As can be seen from Table VIII, the Tchad languages in this case also stand off from the others: the person of the subject is in Hausa expressed by separate lexemes. In several verbal forms they are connected with the stem by a special particle. However, in Hausa as well as in the other branches there exists a contrast between the Jussive and the Perfective, on one hand (forms with reduced vocalism), and the Imperfective, on the other (form with full vocalism). It is to be noted that Hausa *kira-ya* is a form of the verbal noun of action (*maṣ-dar*);<sup>62</sup> in Akkadian, too, the Imperfective is perhaps derived from the stem of the verbal noun of action *\*parās-*.

<sup>62</sup> Etymologically the form might be associated with the intransitive Imperfective *\*ia-nkas-i* in Bedawye (*-ya* may be identified with the relative suffix *-ia*, *-iā*).

## Semitic-Hamitic Verbal Forms with Prefix-Conjugation

Language	Character of the verb	Imperative	Jussive	Perfective	Imperfective
Akkadian	Transitive (Verbs of Motion I) (Verbs of Motion II, also Verbs of momentary and superficial action) Intransitive (inchoative)	*p(u)rus [*p(u)rus *p(i)ris *p(a/i)ras <sup>3</sup>	*ia-prus <sup>1</sup> *ia-prus <sup>1</sup> *ia-pris <sup>1</sup> *ii-pras <sup>3</sup>	*ia-prus *ia-prus *ia-pris *ii-pras <sup>3</sup>	*ia-paras <sup>2</sup> *ia-parus <sup>2</sup> *ia-paris <sup>2</sup> [*ia/i-para/i/us] <sup>4</sup>
Berbero-Libyan <sup>5</sup>	Transitive Intransitive	*(u/i)fru/is *(a)frās		*ia-fru/is *ii-frās	*ia-faras ?
Beda- weye <sup>6</sup>	Transitive Intransitive	? *nekās-, *ām-		*ia-fdig, *ia-dtr *ii-nkās, *ii-ām	*ia-fandig, *ia-n-dair <sup>7</sup> [*ii-nkasi, *ii-ami]
Hausa		*kira <sup>8</sup>	ia kira	ia(-n) kira	ia-na kira-ya

Notes: <sup>1</sup> The Jussive (reconstructed form \*ia-prus, etc.) is well documented in the other Semitic languages; in Akkadian it is encountered in its pure form only in conditional clauses where it is usually confused with the Perfective; it exists also in the form of the Prohibitive \*ai(-)i-prus (< \*ai ia-prus) and the Precative liprus (< \*lā ia-prus).

<sup>2</sup> The form really found in the texts is *i-parras*. The reduplication of the second radical is secondary, due to the fact that \*ia-paras would inevitably result in \*i-paras > \*i-pras, whereas the form *i-pras* (< \*ii-pras) was already in use as that of the intransitive Perfective. Cf. Mehri *ittōber* which, as proved by A. Klingenheben, is derived from \*ia-tabar. Alongside with the pattern in the table, there exists also a more rare one: transitive \*lmad, \*ia-lmad, \*ia-lmad, \*ia-lamad.

<sup>3</sup> Thus in most Semitic languages, originally also in Akkadian where these verbs had an ingressive or inchoative sense: *i-blat* 'started living; returned to life'; *i-šlam* 'got safe, secure, reached well-being'. However, in Akkadian this form was very early displaced by the form of the verbs of motion (by analogy).

<sup>4</sup> This form exists only in Akkadian and evidently is an innovation. The original form probably was \*ii-prās.

<sup>5</sup> The reconstruction of Proto-Berbero-Libyan verbal forms suggested here needs justification. We will attempt it as briefly as possible. In the modern Berber languages there usually are three finite verbal forms beside the Imperative: the "Aorist" (= Perfective), the "Prete-



rite" (= Imperfective), and the "Aorist-Habitative". The latter is compared by O. Rössler to the Akkadian Imperfective, whereas the "Aorist" and the "Preterite" are regarded by him as two varieties of the Old Perfective. According to the more convincing explanation offered by M. Cohen and A. Klingenheben, the "Aorist-Habitative" is to be connected with the Semitic reduplicated and reflexive verbal stems—a formation of a different nature (see below). It is also probable that the "Aorist-Habitative" is analogous to the Egyptian Iterative (or Durative, Habitative) of the type *mrr*. In some dialects there are more than three finite verbal forms (up to five), but according to the well-founded opinion of A. Basset the other forms are not primary. The reconstruction of the original vocalism of the Berbero-Libyan verbal forms is a difficult task due to the loss of a number of consonants (*u, i, b, γ, h, k*), to all short vowels coinciding in *ə* or zero, and in many cases to the changes in vocalism under the influence of a lost consonant which to us is no more qualitatively identifiable. Thus, many phenomena are completely obscure. However, most usual are the forms: Imperative *ərdəl, əzzəl, əgmī, əndu*, Perfective ("Aorist") *i-rdəl, i-zzəl, i-gmī, i-ndu*, Imperfective ("Preterite") *i-rdəl, i-zzəl, i-gmāi, i-nda* or *i-ndu* (the roots are *rdl* 'to take', *(')zl* 'to hold', *gmī* 'to seek', *ndu* 'to churn'). The coinciding forms of the Perfective and the Imperfective have made it necessary to introduce a special supplementary imperfective particle *ad*. In our opinion, the existent verbal forms may be explained in the most logical and consistent way if the original forms are reconstructed as follows: Imperative *\*(u)rṭul, \*(u)'sul* or *\*(i)rṭil, \*(i)'sil, \*(i)gmī, \*(u)ndū*, Perfective *\*ia-rṭul, \*ia-'sul* or *\*ia-rṭil, \*ia-'sil, \*ia-gmī, \*ia-ndū*, Imperfective *\*ia-r(a)ṭal, \*ia-(a)ṣal, \*ia-g(a)maī, \*ia-n(a)daū*. It is hard to prove that the stem of the Imperfective was indeed of the pattern *\*-faras* and not *\*-fras*, but this is probable on account of the Semitic pattern (not only in Akkadian but also in Southern Peripheral).

In order to reconstruct the Berber intransitive verb one must keep in mind that though at present it may coincide in form with the transitive (Imperative *əndər*, Perfective *i-ndər*, Imperfective *i-ndər*, root *\*ndr* 'to moan'), the original vocalism was probably different (e. g. Imperative *\*(a)ndar*, Perfective *\*iī-ndar*, Imperfective *\*iī-ndar* or the like). The intransitive predicate may also be expressed by the Qualitative. The latter, again, may have one of the two forms: (1) Imperative *gədaū*, Perfective *iə-ggədaū* 'to be red-haired'; or (2) Imperative *i-sməd*, Perfective *i-sməd* 'to be cold' (the other patterns of vocalism in the Qualitative belong probably to derivative verbal stems, see below). In all cases a form doubtlessly nominal in its origin functions as the Imperfective (in Kabyle it is conjugated after the pattern of the Akkadian Stative). Irrespective of the complicated problem of the Imperative of the Qualitative, one can assume that the forms of the Perfective are derived from *\*ia-ggədaū, \*iī-smāt*. The first form seems to have no analogies in Semitic (but see below on the N-Type Stirps?) and is omitted in our table. It is possible that originally the intransitive verbs were not differentiated by aspects. The irregular verb *\*inī* 'to be young' has, it is true, besides the normal form of the Perfective and Imperative, *inaī < iī-ināi*, also an Imperfective of the form *iə-inai*, evidently from *\*ia-ianāi* after the pattern of the transitive verbs (?). However, this is a unique case, and it is not impossible that the form *iə-inai* is derived from some rare nominal pattern.

<sup>6</sup> In Bedawye, not counting the secondary verbal forms connected with the auxiliary verb, there are three forms with prefix-conjugation: the "Perfect" (=Perfective), the "Pluperfect", and the "Present" (=Imperfective). The "Pluperfect" is probably a secondary form derived

from the "Present". Some verbs have only two verbal forms with prefix-conjugation. The contrast of the *a*-vocalism in the Imperfective to the *i*-vocalism in the Perfective is typical of other Cushitic languages as well (thus in Somali, in Agan, in Saho-Afar, etc.; in the latter, however, the contrasting vocalism has been shifted to the prefix). Note that the transitive verbs in Bedawye correspond in vocalism to the Semitic verbs of motion.

<sup>7</sup> The observed forms of the 3d person Singular are *jan'dig*, *e-n'dir*. There is an opinion that the *-n-* in the "Present" transitive is a relic of the auxiliary verb 'an 'to be'. (Cf. the prefix group *ia-na-* in Agau). This, however, is improbable, because *-n-* is absent in the Plural (*e-fa'dig-na*, *ē-'dir-na* or *e-'der-na* < \**ia-dair-na*?), as well as in all forms of the "Present" in derivative verbal stems. Therefore either there is a contamination of original and auxiliary verbal forms in the paradigm, or the original form of the 3rd person Singular of the "Present" is to be reconstructed as \**ia-faddig*, *-nd-* being a dissimilation of *-dd-* which, in its turn, of course is also secondary (cf. the form of the Imperfective in Akkadian); whereas the length of the *-ī-* might be explained as resulting from the influence of the stress or from analogy. Cf. in Somali: Perfective *ii-kin* 'he knew', Imperfective *ia-kān*. Another possibility is that *-n-* in Bedawye is related to the particle *-na* in Hausa. For interpretation of the ending *-i* in the intransitive Imperfective compare the ending *-ga* in the Hausa Imperfective.

<sup>8</sup> This form has been displaced nearly completely by the Jussive.

Extremely interesting is the particle *n(a)* which in Hausa connects the subject-pronoun with the verbal stem.<sup>63</sup> The particle *na* is widely used in Hausan nominal constructions as *nota genitivi*. Still, in the verb, it is difficult to interpret *n(a)* in the same way, because if we suppose that the verbal construction was, in those particular forms where *n(a)* occurs, originally a nominal possessive construction, then, as in Egyptian, the word-order would be reversed and, besides, the subject-pronoun would hardly be identical with that used with the form without *na*.<sup>64</sup> It is more probable that *n(a)* is a relic of the auxiliary verb 'to be'; analogous constructions occur in several Cushitic languages.

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<sup>63</sup> Besides the verbal forms included in Table VIII, there exist in Hausa others, where the subject-pronoun is connected with the verbal stem by particles (?) other than *-n*, e.g. the Past Tense: *su(n-)ka kira*, the Future Tense: *s(u)-ā kira*; in some cases the place of these particles (?) is occupied by certainly verbal forms, e.g. the Habitative *su kan kira*.

<sup>64</sup> In Egyptian *n-* is not only the stem of the *nota genitivi* but there exists also a preposition *n* pointing out, among others, various relations of a locative-temporal character. However, this preposition is possibly akin to the Semitic preposition *li/a-*, and is only a homonym of the *nota genitivi*. The particle *-n* is absent in the 1st, 2nd masculine, and 3rd person Singular of the Hausan Perfective, therefore we use the form of the 3rd person Plural *su-n kira*. A corroboration of the supposed analogy between the Egyptian and the Tchad verbal construction might be seen in the fact that in the Tchad language

This auxiliary verb may be the origin of the "independent" pronominal elements expressing the person and gender with its stem reduced to zero in the Jussive, of the form *ia(-n)* of the Perfective and, with full vocalism, *ia-na* in the Imperfective.

In Egyptian, all original verbal forms are completely replaced by nominal, i. e., the possessive and analogous constructions: *sđm-f* 'hearing<sup>65</sup>-his' = 'he is, was or will be hearing' for the Imperfective, and *sđm-n-f* 'hearing-for-him' = 'he heard' for the Perfective.<sup>66</sup> The nominal character of this construction can be seen not only from the subject being expressed by a suffixed possessive pronoun, but also from the fact that the pronoun *-f* expressing the 3rd person of the subject is dropped whenever the latter is a noun mentioned in the sentence: *sđm z'* 'hearing son's', i. e., '(the) son's hearing' for '(the) son hears' (but *sđm-f* 'hearing-his', i. e., 'his hearing' for 'he hears'). However, as we will see below, some scholars have expressed the opinion that there do exist traces of a prefix-conjugation also in Egyptian.

In Berbero-Libyan the subject, if following the verb, assumes the form of *Status annexus*.<sup>67</sup> One might suppose that here we also meet with what originally was a possessive construction (although the verbal forms have not been replaced by nominal ones, as in Egyptian), since the *Status annexus* is also known to be the form expressing the Genitive of the

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Musgu the pronominal element of the 3rd person is absent in the verbal form whenever the subject of the sentence is expressed by a noun. The explanation suggested in the text seems, however, more plausible:

<sup>65</sup> The form *sđm* is here usually interpreted as a "Passive Participle". However, there is reason to believe that no Passive voice originally existed in Semito-Hamitic, so that we ought to speak of a Participle of State, as in Akkadian, where both it and its derivative, the Stative, are not necessarily passive in character. In the derived verbal stems the Participle of State coincides in Akkadian with the verbal noun of action or state (the Infinitive). In view of all this, the form *sđm-f* need not be interpreted as 'his (that which is) heard' but can also be translated as 'his hearing'. According to T. M. Thacker, the element *sđm-* in *sđm-n-f* is an Infinitive. What is really important is the nominal character of the construction.

<sup>66</sup> Alongside of these forms, in Egyptian there exist verbal forms where the subject-pronoun is connected with the stem by other particles, e. g. the Resultative (?) forms *sđm-in-f*, *sđm-ḥr-f*, *sđm-k'-f*. These particles may also precede the verb: *ḥr(-f) sđm-f*. Very common are different constructions with a nominal or adverbial predicate.

<sup>67</sup> Sometimes one of the particles *-n* or *-d* is placed between the verbal form and the subject; these particles, however, are at present regarded as postverbs defining the meaning of the verb as to the direction of action.

noun. However, the interpretation of the Berber verbal construction as possessive is far from convincing.<sup>68</sup>

In Semitic, as has been pointed out above, there is reason to believe that the original verbal construction was ergative 'by him hearing (it)' = 'he heard (it)'. It is usually typical of languages with ergative verbal construction that the personal affixes of the subject in the finite transitive verb cannot be derived from the personal pronouns of the Direct case. It seems that this phenomenon can be observed in Semito-Hamitic.<sup>69</sup> The prefix of the 1st person ('a-) cannot be connected with any pronoun of the Direct case; the only analogy is the suffix -a(m) expressing the 1st person of the indirect object. We cannot judge of the prefixes of the other persons; it may be that here there was no material difference in the pronominal stems in the Direct case and in the supposed oblique case. The pronouns of the 3rd person are originally demonstrative pronouns, whereas the affixes of the subject in the 3rd person of the verb (just as is the case in various other languages) are derived from elements expressing grammatical class: m. \**u-* || *i-*,<sup>70</sup> f. *t-*.

We have already pointed out that in the ergative verbal construction the subject of the verb of action is construed in an oblique case, the so-called Ergative, while the direct object is regarded as the subject of the state resulting from the action, and therefore is construed in the Direct, or Absolute case, usually with a zero case-ending. With intransitive

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<sup>68</sup> The *Status annexus* is in fact etymologically nothing else but the form of the noun without the article. It may be assumed that the noun determined by an article was logically stressed, and this led to its being placed at the beginning of the sentence. At present, as a result of this, the subject of a verb preceding the predicate would appear in the *Status liberus* while if following the predicate it would appear in the *Status annexus*. On the other hand, one might suppose that at a certain period there might have existed two equally possible constructions in Berbero-Libyan: an ergative or nominative construction (the subject in *Status liberus* plus the predicate), and a possessive one (the predicate plus the subject in *Status annexus* = Genitive; cf. the special form of *Status annexus* masculine in -*t* in Libyan-Numidian). However, this latter supposition seems hardly convincing.

<sup>69</sup> It must be noted that the Semitic independent personal pronoun of the Direct case, even in historical times, did not express the grammatical subject of the verb as such but only the emphatically stressed logical subject, and sometimes this pronoun is not even in concord with the verb: cf. Akk. *u šū i-mkut-su hatt-u(-m)* 'and he—the terror fell (upon) him'.

<sup>70</sup> Compare the frequent interchange of initial *u-* and *i-* in Semito-Hamitic while *u* in the other positions is preserved, and cf. (1) the suffixed possessive pronoun of the 1st person: Hausa -*ua*, the other languages \*-*ia*, (2) the Participle of State, Cush. \*-*aya* > -*a*, Hausa m. -*aije*, \*-*ie* (*kirarre* < \**kirar-je?*), f. -*ija*.

verbs, which mostly are verbs of state, the subject of this state is naturally also in the Direct, or Absolute, or zero case.<sup>71</sup> Therefore, if Semito-Hamitic was originally a language with an ergative verbal construction, we should expect that the intransitive verbal sentences should once have been construed with the subject in the zero case, so that it would be possible to derive the subject-affixes of the intransitive verb from personal pronouns of the Direct case. We have seen above that, although the intransitive verbs in Semito-Hamitic are formally distinct from the transitive verbs, their conjugation is in principle identical with that of the latter. But the data from Akkadian, the most archaic of the Semito-Hamitic languages, show that the intransitive verbs of this conjugation are exclusively verbs of intransitive action (verbs of motion, inchoative verbs, etc.). The situation is different whenever the predicate expresses a state. In such cases Akkadian uses a special finite form, the Stative, formed both from primary and from verbal nouns, most frequently from the Participle of State, the pattern being *\*paris(a)*, *\*parus(a)*, *\*paras(a)*.<sup>72</sup>

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<sup>71</sup> Supposing that the verbal construction in Semito-Hamitic was originally ergative, we must presume that Common Semito-Hamitic had no Passive, i. e., no verbal form where the action is regarded not from the point of view of the logical subject but from that of the logical object. No Passive is possible with a classical ergative construction because the point of view of the logical object (i. e., the subject of the state) is just as much represented in the basic finite verbal form as is the point of view of the logical subject of the action. In other words, the verbal form is neither active nor passive but "doubly oriented", both to the subject of the action and to the subject of the resulting state. This can be easily made apparent in languages where the ergative construction is intact (e. g. Sumerian, Hurrian, Urartean, many of the Caucasian languages a. o.). In Semito-Hamitic it can be shown that the forms of the Passive in the individual languages of the family cannot be derived from a common prototype, and moreover, that the Passive in Semito-Hamitic languages is in all cases either not a real Passive at all but a "non-personal" verbal form, or has been derived secondarily from Reflexive forms. Akkadian has no Passive. Not uncommonly the allegedly "Passive" forms are really neutral as to voice. When grammarians call a certain form "Passive" in Egyptian, it leads to the statement that in this language there exists a Passive of the Intransitive verb. By definition, however, a Passive voice is a verbal form where the logical direct object is grammatically regarded as the subject, and an Intransitive verb is a verb which has no direct object, whether logical or grammatical. Thus, it is assumed that in Egyptian there is a verbal form where the object of a verb without an object is the grammatical subject. However, it is historically more simple to explain it by the existence at an earlier stage of intransitive verbal forms neutral as to voice. We shall not discuss here the problem of the Passive in detail, leaving that for another publication.

<sup>72</sup> The ending *-a* is not attested in practice for the Stative in Akkadian texts, but can be reconstructed, since both *-a* and zero are attested at the most ancient stage of Akkadian for the Absolute case in

As has been pointed out earlier, the 3rd person of the Stative is identical with the *Status praedicativus* of the Participle of State, and its only inflexion is the sign of gender; but in the 1st and 2nd persons the Stative is supplied with suffixes expressing the subject, identical in principle with the Independent personal pronouns of the Direct case (Type I minus the prefixed emphatic particle 'an-).

Pronoun		Personal affix in the Stative <sup>73</sup>
1 p.	*-ku	-kū, <sup>74</sup> -tū <sup>76</sup>
2 p. m.	*-ka > *-ta	-ka, <sup>75</sup> -ta
2 p. f.	(*-ki?) > *-ti	-ki, <sup>75</sup> -ti <sup>77</sup>

The functionally similar Egyptian Qualitative-Stative ("Pseudo-Participle") is formed in about the same way as the Akkadian Stative:

1 p.	<i>sām-kwy</i> <sup>78</sup>
2 p. m.	<i>sām-ty</i>
2 p. f.	<i>sām-ty</i>
3 p. m.	<i>sām-w</i> , <i>sām-y</i>
3 p. f.	<i>sām-ty</i> , etc. <sup>79</sup>

Of doubtful origin here is the final -y, and, perhaps, those who regard it as a relic of the verbal copula *īw* 'to be', conjugated in the ancient way by means of prefixes, are right:<sup>80</sup>

general, and the 3rd person of the Stative is nothing else but the Absolute case (*Status praedicativus*) of the Participle of State.

<sup>73</sup> And in the "New Perfective" of the Semitic languages other than Akkadian.

<sup>74</sup> In Akkadian and Ethiopic.

<sup>75</sup> In the Ethiopic "New Perfective".

<sup>76</sup> In the other Semitic languages ("New Perfective").

<sup>77</sup> In the Plural: 1st p. \*-na/ū, 2 p. m. \*-kumu, \*-tumu, 2 p. f. \*-ki(n)na, \*-ti(n)na, 3 p. m. \*-ū, f. \*-ā. The two last forms are the usual Plural of the Akkadian noun in the *Status praedicativus*.

<sup>78</sup> Also *sām-kw*, *sām-ky*.

<sup>79</sup> Cf. М. Э. Матье, *Основные черты древнеегипетского глагола*, — «Ученые записки Ленинградского Гос. Университета», № 128, Серия восточных наук, выпуск 3, Ленинград, 1952.

<sup>80</sup> The scholars in question (as, for instance, A. Klingenberg) reconstruct the "Pseudo-Participle" as the *Status praedicativus* of the verbal adjective followed by a verbal copula with the ancient prefix-conjugation, analogous to the formation of the predicative adjective in Bedawye; but this reconstruction does not account for all of the extant forms (e. g. *sām-kwy* a. o.) It is therefore preferable to reconstruct it (at least in the Singular) as a conjugated form of the *Status praedicativus* of the Participle of State (i. e., *Status praedicativus* plus

	Supposed original form	Resulting form	To read approximately
1 p.	* <i>sǎm-ku</i> 'a- <i>iw</i> <sup>81</sup>	> <i>sǎm-kwy</i>	* <i>sǎmakuu(i)</i>
2 p. m.	* <i>sǎm-t(a)</i> ta- <i>iw</i>	> <i>sǎm-ty</i>	* <i>sǎmətai(u)</i>
2 p. f.	* <i>sǎm-t(i)</i> ta- <i>iw-ī</i>	> <i>sǎm-ty</i>	* <i>sǎmətai(i)</i>
3 p. m.	* <i>sǎm-aṭ</i> ṭa- <i>iw</i>	> <i>sǎm-w/y</i>	* <i>sǎməṭai(u)</i>
3 p. f.	* <i>sǎm-at</i> t/ṭa- <i>iw</i>	> <i>sǎm-ty</i>	* <i>sǎmətai(u)</i>

The conjugation of the Berbero-Libyan Qualitative—the predicative form of qualitative adjectives preserved in one Berber language only, the Kabyle <sup>82</sup>—is similar to that of the Akkadian Stative.

#### Akkadian Stative

#### Kabyle Qualitative

Sg. <sup>83</sup>

1 p.	...-ā-ku <sup>84</sup>	...-əγ (< *...-ak < *...-akku?) <sup>85</sup>
2 p. m.	...-ā-ta <sup>84</sup>	...-əḏ (< *...-at < *...-atta?) <sup>85</sup>
2 p. f.	...-ā-ti <sup>84</sup>	...-əḏ (< *...-at < *...-atti?) <sup>85</sup>
3 p. m.	...(-zero)	...(-zero)
3 p. f.	...(-at)	...-əṭ (< *...-at)

suffixed personal pronoun) connected with the copula conjugated by means of prefixes. It is to be noticed that a reconstruction of the relics of a copula in the Egyptian "Qualitative-Stative" would presuppose a verbal construction entirely different from the one documented by the texts in historical times, where a copula in this case is impossible.

<sup>81</sup> We vocalize conventionally (after the Akkadian pattern) only the affixes, leaving the stems unvocalized. According to T. M. Thacker, the stem must be vocalized \**sǎmā-* (possibly \**sǎdim-*).

<sup>82</sup> The coincidence with the Akkadian forms allows us to suppose that the conjugation of the Kabyle Qualitative is a survival of a Common Berbero-Libyan phenomenon. The arguments of A. Klingenhoben to the contrary do not seem convincing. The supposition that the Qualitative is archaic is supported by the existence of the suffix of the 1st person -əγ/ -iγ/ -aγ in the Perfective and Imperfective of all Berber dialects. This suffix can be derived only from the paradigm of the Qualitative. It follows from this, that in Common Berbero-Libyan there existed originally a Stative with personal suffixes derived from independent personal pronouns of the Direct case of Type I (the type of Sem. \**an-āku/ī*, \**an-ta*, \**an-ti* etc. minus \**an-*; cf. the Berber pronoun of the 1st person, *nə(k)k(i)* < \**an-ākī*).

<sup>83</sup> The Plural of the Akkadian Stative is formed after the same pattern: -ā-nu, -ā-tunu (< \**tumu*), -ā-tina, -ā, -ā, whereas the Kabyle Qualitative has one common suffix for all persons of the Plural, -it, which, according to O. Rössler, is cognate with the Akkadian Plural of the adjectives and participles, -ūt-.

<sup>84</sup> -ā- is here a "Bindevokal".

<sup>85</sup> We suppose that -γ, -ḏ are reflexes not of -k, -t as is usual, but of -kk, -tt with reduplication due to old stress; \**-ku*, \**-ta*, \**-ti* would result in -(ə)χ, -(ə)t in Kabyle.

If there ever existed a Stative in Cushitic, it has not been preserved or is replaced by an innovation (the predicative adjective in Bedawye, with a shortened copula). Hausa has no Stative.

One should attempt an explanation of the difference between the Common Semito-Hamitic verbal system and that of the Semitic languages other than Akkadian. Several explanations have been suggested<sup>86</sup> but the one we are about to offer seems to us to account for the facts in the easiest way.

The main difference between the verbal system of Akkadian and of the other Semitic languages is that in the latter the form which in Akkadian functioned as Stative (pattern *\*para/i/usa*; we shall call it the "New Perfective") has completely replaced the Old Perfective *\*ia-prus* (*\*ia-pris*<sup>87</sup>, *\*ii-pras*).

This change is comparatively easy to explain, since the Stative, expressing as it does a state resulting from an action, is a form which is perfective in its essence; moreover, being by origin neutral as to voice, the Stative could in certain cases have a transitive sense, if it was formed from a transitive verb. Thus, the form *\*šabit* ('held', but also 'having taken hold and continuing to hold') can sometimes even in Akkadian have a pronominal suffix of the object (in poetry).

More difficult is the explanation of the fact that the form of the Old Perfective plus a suffix *-u* (*\*ia-prus-u*, *\*ii-pras-u*, etc.) plays the role of the Imperfective in all Semitic languages except Akkadian and Southern Peripheral (we shall call this form the "New Imperfective"). Before we turn to the interpretation of this fact, we must dwell upon the verbal forms

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<sup>86</sup> For the latest theories see O. Rössler, "Verbalbau und Verbalflexion in den semitohamitischen Sprachen", *ZDMG*, 1950; by the same author, "Akkadisches und Libysches Verbum", *Orientalia*, XX, 1951; A. Klingenheben, "Die Präfix- und Suffixkonjugation des Hamito-semitischen", *MIOF*, IV, 1956; J. Kuryłowicz, "Esquisse d'une théorie de l'apophonie en sémitique", *BSL*, LIII, 1958. Most of these theories have the defect of directly identifying the Semitic "New Imperfective" *\*ia-prus-u* with the Akkadian Perfective *\*ia-prus* although these forms are obviously not identical.

A. Klingenheben's theory has another weakness: the author deduces the extant forms from other supposed forms without considering the semantics of the verbal structure as a whole, i. e., without proving that the existence of forms of a certain content was necessary.

<sup>87</sup> For the sake of simplicity we will below leave the form of the verbs of motion, *\*ia-pris*, out of the discussion.



which in Semitic linguistics are, more or less conventionally, called moods.<sup>88</sup>

The moods being expressed mainly by vocalic external inflection, they are already at the Middle Stage preserved only as survivals and have completely disappeared at the New Stage. Therefore we shall mainly use Akkadian and Arabic material. Here the modal forms exist only with the prefix-conjugation, i. e., in Akkadian with Perfective and Imperfective, in Arabic only with the "New Imperfective". Besides these two languages we must also use the material of Mehri which enables us to reconstruct the situation in Ancient Southern Peripheral, where the texts are non-vocalized.

In the languages mentioned there exist or can be reconstructed three main moods,<sup>89</sup> not counting the Indicative:<sup>90</sup> a Jussive, with zero suffix, and two types of Subjunctive, with the suffixes *-u* and *-a*.

In Mehri, a language of the New stage, the external vocalic inflection has been lost, and one form serves for all moods except the Indicative, namely the form *\*īa-frus-*. However, it is fairly certain that in the Ancient Southern Peripheral there must also have existed the forms *\*īa-frus-u* and

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<sup>88</sup> There was probably no Subjunctive mood in Common Semito-Hamitic. This can be deduced from the fact that the endings of the Subjunctive, *-u*, *-a*, as shown by A. P. Riftin, originally belonged to nominal constructions which historically preceded the formation of subordinate clauses. Thus, in Akkadian, alongside of verbal subordinate clauses of the type *\*šarr-u-m tu i-prus-u*, *šar(r) i-prus-u* ('the king who divided. . .'); *tu* in the first instance is a *nota genitivi*; in the second the subordinate clause is introduced by a noun in *Status constructus* as if it was a noun-attribute in the Genitive) there still exist purely nominal phrases which may be used in the same sense and are construed in the Genitive or in the Locative and governed by a *nota genitivi* or a *Status constructus*: *\*šar(r) parās-i-m*, *\*šarr-u-m tu parās-im* (Gen.); *\*šar(r) parās-u* (Loc.); cf. in the Laws of Hammurapi: *'erēḫ tāḫāz-u* 'fury (which is) in the battle'. Just as Akk. *-u* in *\*īa-prus-u* is originally a nominal suffix of the Locative case (cf. the Sumerian Loc. *-a* both in nominal phrases and in verbal subordinate clauses), so is Sem. *-a* in *\*īa-prus-a* originally the *Accusativus loci* very common in Semitic. See A. П. Рифтин, *О двух путях развития сложного предложения в аккадском языке*, «Советское языкознание», III, 1937, стр. 59 сл.; by the same author, *К происхождению форм наклонений в арабском и аккадском языках*, «Труды II сессии Ассоциации арабистов», Москва-Ленинград, 1941, стр. 127 сл.

<sup>89</sup> In Arabic and in some other Semitic languages there exists also a so-called "Energetic mood" (ending *-nna*) which need not concern us here. In Akkadian the role of a "mood" expressing a general movement of action towards the speaker is played by the Indicative with a suffixed pronoun of the indirect object in the 1st person. See A. П. Рифтин, *op. cit.*

<sup>90</sup> We exclude also the Imperative which is a form apart and stands in no formal relation to the modal forms under discussion.

## Moods in Semitic

Form	Akkadian	Southern Peripheral	Arabic
I. a. <i>*ia-prus</i> (Intransitive <i>*i-i-pras</i> )	1) Perfective Indicative 2) Jussive, neutral aspect	Jussive, neutral aspect	Jussive, neutral aspect
b. <i>*ia-prus-u</i> (Intransitive <i>*i-i-pras-u</i> )	Perfective Subjunctive I (form of the verb in all subordinate clauses except conditional clauses which require the Jussive)	*Subjunctive I (probably of neutral aspect)	Imperfective Indicative, also form of the (Imperfective) verb in all subordinate clauses with exception of conditional and purposive
c. <i>*ia-prus-a</i> (Intransitive <i>*i-i-pras-a</i> )	Perfective Subjunctive II (preserved only in one dialect of Old Akkadian), original function unknown	*Subjunctive II (form of the verb in purposive subordinate clauses?)	Subjunctive (form of the verb in purposive subordinate clauses)
II. a. <i>*ia-paras</i>	Imperfective Indicative transitive	Imperfective Indicative transitive	does not exist
b. <i>*i-i-paras</i>	Imperfective Indicative intransitive	*did not exist, with <i>i-i-fras</i> in its stead? <sup>2</sup>	does not exist
c. <i>*ia-paras-u</i> (Intransitive <i>*i-i-paras-u</i> )	Imperfective Subjunctive	probably did not exist	does not exist
III. <i>*pari/u/as(a)</i>	Stative	Perfective	Perfective

<sup>1</sup> I. J. Gelb, "Old Akkadian Inscriptions in Chicago Natural History Museum", *Fieldiana: Anthropology*, 44, 2. 1955, p. 190.

<sup>2</sup> Later — as in Akkadian.

\**ia-frus-a* which later coincided with the form of the Jussive, \**ia-frus*.<sup>91</sup>

The relation between the values of the modal forms of the verb in Akkadian, in Southern Peripheral (as reconstructed), and in Arabic, can be presented as follows (Table IX).

The peculiarity of Akkadian consists in the presence in the paradigm of an intransitive Imperfective \**ia/i-paras* which has been formed by analogy with the transitive Imperfective \**ia-paras*; judging from Berbero-Libyan, this seems to be an Akkadian innovation because in Common Semito-Hamitic the form \**ii-prās* served for both aspects of the intransitive verb. Other forms of the intransitive Imperfective, as can be seen from Table VIII, cannot be derived from a common prototype. It was precisely due to the existence of symmetrical forms of the transitive and intransitive Perfective contrasting with the likewise symmetrical forms of the transitive and intransitive Imperfective that Akkadian was exempt from the process of replacement of the Old Perfective by the Stative.

On the contrary, in the other Semitic languages it was only the formation of a "New Perfective" on the basis of the Stative which made it possible to distinguish aspects not only in the transitive verb but also in the intransitive.

The "New Perfective", \**para/i/usa*, which replaced the forms \**ia-prus*, \**ii-pras* in their function of Perfective Indicative, had no Jussive or Subjunctive forms either in Arabic or in Southern Peripheral.<sup>92</sup>

The form \**ia-prus* in its function of Jussive was neutral as to aspect,<sup>93</sup> and this enabled it to survive after the formation of the "New Perfective". The form of Subjunctive II, \**ia-prus-a*, was also probably neutral as to aspect, serving to express the predicate of the purposive clauses which are imperfective in their essence.<sup>94</sup> We may suppose that the Subjunctive I (\**ia-prus-u*) was likewise neutral as to aspect,

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<sup>91</sup> As documented in the texts, both the Jussive and the Subjunctive in Ancient Southern Peripheral have the "energetic" form with ending *-n*, *-nn* which probably was added to the vocalic suffix of the main moods: (zero), *-u*, *-a*. In any case, this shows that the Jussive and the Subjunctive were formed similarly.

<sup>92</sup> The Subjunctive ending *-u* can be added to the Akkadian Stative but not to all of its forms; it is probable that this Akkadian phenomenon did not prevail in the other languages.

<sup>93</sup> This is proved by the Jussive being neutral as to aspect in conditional clauses both in Akkadian (where it has been confused with the Perfective but nonetheless has usually an imperfective sense), and in Arabic.

<sup>94</sup> Because the action in a purposive clause cannot normally be regarded as perfected.

whether originally or by analogy with the Jussive and the Subjunctive II. This follows from the fact that in Mehri, although the form *\*ia-faras* of the Imperfective Indicative has been preserved, the Subjunctive form still is *\*ia-frus(-u)*; Akk. *\*ia-paras-u* for the Imperfective Subjunctive must be regarded as an innovation.

As soon as the "Old Perfective" was replaced by the "New" in all moods, the modal forms of the prefix-conjugation which originally had been neutral as to aspect automatically became imperfective.

The intransitive form *\*ii-pras*, neutral as to aspect even in the Indicative<sup>95</sup> was also, with the advent of the "New Perfective", reserved for the Imperfective aspect only.

The fact that in Arabic the form *\*ia-frus-u* is used as Imperfective Indicative obscures another fact, namely, that it also has a function identical with that of Akk. *\*ia-prus-u*. Like the latter, Arab. *\*ia-frus-u* is used as the form of the verb in all subordinate clauses with the exception of the clauses of purpose<sup>96</sup> and conditional clauses.<sup>97</sup> Thus, it can be supposed that the form *\*ia-frus-u* was in Arabic, just as in Mehri and Akkadian, a modal form and, as in Mehri, neutral as to aspect, and that it was only later that this form replaced the Old Imperfective Indicative, *\*ia-faras*. The latter is, according to the unanimous evidence of nearly all branches of Semito-Hamitic, the original form of the transitive Imperfective.

The cause of the development of this second and from now on by far the most important function of the form *\*ia-frus-u* in Arabic, namely that of the Imperfective Indicative, can be explained simply enough. As we have seen above, all other verbal forms with the prefix-conjugation and reduced vocalism, though originally neutral, became imperfective once the "New Perfective" made its appearance. This resulted in the following scheme:

<sup>95</sup> Vestiges in Mehri? Cf. the analogous situation in Sumerian.

<sup>96</sup> Classical Akkadian makes no difference between clauses of purpose and other subordinate clauses. But the existence of two synonymous forms of the Subjunctive in Old Akkadian (*\*ia-prus-u* and *\*ia-prus-a*) cannot be primary; the form *\*ia-prus-a* must have had a separate function, and it is a safe guess that it was the same as in Arabic. Its derivation from *Accusativus loci* (direction of motion → purpose) proves the same, see above, p. 91, note 88.

<sup>97</sup> The difference in aspect (Arab. *\*ia-frus-u* is, in subordinate clauses as well as in the principal clause, a form of the Imperfective, whereas Akk. *\*ia-prus-u* is a form of the Perfective) need not trouble us if we assume that the Subjunctive was in Arabic originally neutral as to aspect, and that the Akkadian Imperfective Subjunctive, *\*ia-paras-u*, is an innovation.

	Transitive Imperfective	Intransitive Imperfective
Indicative	* <i>ia-faras</i>	* <i>li-fras</i>
Jussive	* <i>ia-frus</i>	* <i>li-fras</i>
Subjunctive I	* <i>ia-frus-u</i>	* <i>li-fras-u</i>
Subjunctive II	* <i>ia-frus-a</i>	* <i>li-fras-a</i>

The full vocalism of the old transitive Imperfective Indicative upset the symmetry of the scheme. Nevertheless this form persisted in Mehri; but in Arabic, with its tendency to geometrical schematism,<sup>98</sup> as well as in Northern Central Semitic, this unsymmetrical form was replaced by the form next in frequency, namely the one of the verb in most subordinate clauses.<sup>99</sup> This was the more natural since the "New Perfective" which had developed by that time also lacked any formal distinction between the verb in the principal and in the subordinate clauses. Thus, we can reconstruct the following scheme of the verbal system in Proto-Semitic—a scheme close to the Common Semito-Hamitic:<sup>100</sup>

	Proto-Semitic: Transitive			Intransitive
Mood:	Imperfective	Neutral	Perfective	Neutral
Indicative	* <i>ia-paras</i>	—	* <i>ia-prus</i> <sup>101</sup>	* <i>li-pras</i> <sup>102</sup>
Jussive	—	* <i>ia-prus</i>	—	* <i>li-pras</i>
Subjunctive I	—	* <i>ia-prus-u</i>	—	* <i>li-pras-u</i>
Subjunctive II	—	* <i>ia-prus-a</i>	—	* <i>li-pras-a</i>
Stative	—	—	* <i>pari/u/as(a)</i>	* <i>pari/u/as(a)</i>

<sup>98</sup> This tendency is clearly apparent in all Arabic verbal patterns. Cf., e. g., the adjustment of the vocalism of the intransitive verb (\**ia-fras-u* < \**li-fras-u*) after the pattern of the transitive (*ia-frus-u*).

<sup>99</sup> Both the Indicative and the Subjunctive I are narrative forms; Subjunctive I becomes, in fact, functionally superfluous once subordinative conjunctions have developed. The Jussive, on the contrary, has a semantic character quite of its own. Thus it is understandable why the Indicative forms \**ia-faras*, \**li-fras* were replaced by the Subjunctive forms \**ia-frus-u*, \**li-fras-u* and not by the Jussive. Moreover, Subjunctive I had already lost its perfective use with the development of the form \**fara/i/usa*, whereas the field of application of the Jussive had not been encroached upon by the "New Perfective".

<sup>100</sup> The difference between the Proto-Semitic and the Common Semito-Hamitic scheme consists in that no moods except the Indicative and the Jussive existed in the latter, and even the Jussive was merely a special case of the use of the Perfective aspect.

<sup>101</sup> \**ia-prus* was evidently the main narrative form, and \**ia-paras* the contrasting one (namely, in cases when the incomplete character of the action was to be specially stressed). Although we have placed the Indicative \**ia-prus* not in the same column as the Jussive and the Subjunctive I and II (\**ia-prus*, \**ia-prus-u*, \**ia-prus-a*), the contrast in aspect between them is not so sharply delimited as the contrast \**ia-prus*: \**ia-paras*.

<sup>102</sup> As can be seen from the data of the other Semito-Hamitic lan-

The systems of the three languages under discussion can be deduced from this. In all cases a tendency towards symmetry of forms is evident.

Akkadian:

Transitive			
Mood:	Imperfective	Neutral	Perfective
Indicative	<i>i-parras</i>	—	<i>i-prus</i>
Jussive	—	<i>i-prus</i>	—
Subjunctive <sup>103</sup>	<i>i-parras-u</i>	—	<i>i-prus-u</i>
Stative	—	—	<i>paris</i>

Intransitive			
Mood:	Imperfective	Neutral	Perfective
Indicative	<i>i-parras</i>	—	<i>i-pras</i> <sup>104</sup>
Jussive	—	<i>i-pras</i>	—
Subjunctive <sup>103</sup>	<i>i-parras-u</i>	—	<i>i-pras-u</i> <sup>104</sup>
Stative	—	—	<i>pari u as</i>

Southern Peripheral:

Transitive		
Mood:	Imperfective	Perfective
Indicative	<i>*iā-faras</i>	} <i>*farasa</i> <sup>106</sup>
Jussive	<i>*iā-frus</i> (Neutral)	
Subjunctive I	<i>*iā-frus(-u)</i>	
Subjunctive II	<i>*iā-frus(-a)</i>	

Intransitive		
Mood:	Imperfective	Perfective
Indicative	<i>*iī-fari us</i> <sup>105</sup>	} <i>*fari usa</i> <sup>106</sup>
Jussive	<i>*iī-fras</i> (Neutral)	
Subjunctive I	<i>*iī-fras(-u)</i>	
Subjunctive II	<i>*iī-fras(-a)</i>	

guages, the primary form was in all likelihood *\*iī-prās*, the shortening of the vowel being probably due to *Systemzwang*.

<sup>103</sup> The dialectal form in *-a* is omitted.

<sup>104</sup> Later replaced by forms of the verbs of motion: *i-parrus(-u)*; *i-prus(-u)*; *i-parris(-u)*; *i-pris(-u)*.

<sup>105</sup> *\*iī-fari|us* in Ethiopic, not quite clear in Mehri.

<sup>106</sup> The correlation *iā-frus-u* : *farasa* and *iā-fras-u* : *fari|usa* is ideal. In the real language, due to phonetic changes and influence of analogies, other correlations are encountered as well.

# Arabic:

## Transitive

Mood:	Imperfective	Perfective
Indicative + Subjunctive I	<i>ʔa-frus-u</i>	} <i>farasa</i> <sup>108</sup>
Jussive	<i>ʔa-frus</i> (Neutral)	
Subjunctive II	<i>ʔa-frus-a</i>	

## Intransitive

Mood:	Imperfective	Perfective
Indicative + Subjunctive I	<i>ʔa-fras-u</i>	} <i>fari/usa</i> <sup>106</sup>
Jussive	<i>ʔa-fras</i> (Neutral)	
Subjunctive II	<i>ʔa-fras-a</i>	

In the Northern Central Semitic the system was nearly identical with the Arabic, but with a difference: the vocalism *\*ʔi-pras* of the intransitive verbs was retained.<sup>107</sup> At the Middle Stage the only modal form which persisted in the Northern Central Semitic besides the Indicative<sup>108</sup> was the Jussive, and that only in cases where the presence or absence of an end-vowel at the previous stage influenced the vocalism of the stem.<sup>109</sup>

An important feature of the Semito-Hamitic verbal system is the existence of what the Western schools of Semitologists usually call "verbal stems", or "modifications", and the native Arabian grammarians call نَوْع. The term "verbal stems" is unfortunate; it is not used by the Soviet school which prefers the term *ноpora*, a translation of Lat. *stirps* which was formerly used in European grammars of Semitic languages as a rendering of Arab. نَوْع. We suggest that this term be re-introduced. The *Stirpes* are not stems but groups of paradigmatically connected derivative stems of finite verbal forms and verbal nouns, each *Stirps* having its own semantics, variously characterizing the action or state from the point of view of quality, quantity, or direction (Causative, Factitive, Intensive, Iterative, Durative, Reflexive, Conative, Co-operative, Reciprocal). Each *Stirps* has a complete paradigm of finite verbal forms and verbal nouns, each with its own stem.

<sup>107</sup> In Hebrew there are survivals of the Perfective usage of the form *\*ʔa-prus*, e. g. with the conjunction *ʔa-* (*ʔāʔu conversivum*) and in some other cases.

<sup>108</sup> And the "Energetic mood" with the ending *-n(na)*.

<sup>109</sup> Thus, in Hebrew: "New Imperfective" *\*ʔa-kʔul-u* and Jussive *\*ʔa-kʔul* (Ancient Stage) both result in *ʔi-kʔol* at the Middle Stage; but "New Imperfective" *\*ʔa-gli'-u* (Ancient Stage) > *\*ʔa-gli* > *ʔi-g'la*, and Jussive *\*ʔa-gli(')* (Ancient Stage) > *\*ʔa-gl* > *ʔi-gāl* at the Middle Stage.

The derivative Stirpes are formed by: (1) complete or partial reduplication (Stirpes of the type D[oppelungsstamm], used for Factitive, and also for Intensive, Iterative and Causative verbs); (2) infixation of *-ā-* after the first radical consonant (Stirpes of the type A, used as Conative verbs and for expressing co-operation, etc.); (3) affixation of *\*s-* (Stirpes of the type S, Causative); (4) affixation of *t-* (Stirpes of the type T, used for expression of a reversal of the motion, hence for Reflexives, Habitatives, etc.); (5) affixation of *n-* or *m-* (Stirpes of the types N and M, used for Reflexive verbs and verbs expressing co-operation; later, as also in the case of Type T, they may develop into a Passive voice).

We will symbolise the main, or non-derivative Stirpes, as G[rundstamm].<sup>110</sup>

Not unusual are various combined Stirpes, e. g. S+T, S+D, D+T, etc., etc. The development of combined Stirpes is a later phenomenon, and their system varies strongly from one language to another, even inside one given branch of Semito-Hamitic.

Often forms which originally constituted separate Stirpes of a simple or combined type developed into parts of the paradigm of the more frequent Stirpes. Thus, in Ethiopic Causatives of the S-type can be formed, as a result of a generalization of the system, from any Stirps (S+G, S+D, S+T, etc.). In Akkadian, from reflexive T-Stirpes there has developed in all Stirpes a secondary aspect (not very fortunately termed "Perfect", since it is not specifically used as the perfective aspect or the perfect tense but is employed to denote a *consecutio actionibus*). In Berbero-Libyan all Stirpes have in their paradigms a Habitative formed by reduplication or by prefixation of *t-*; these Habitative forms probably correspond to Stirpes of the D- and T-types of the other Semito-Hamitic languages (i. e., D+G, D+S, D+M, etc.). Egyptian also has a Habitative (or Iterative, Durative) as part of the paradigm of the main G-Stirps, formed by partial reduplication.

The presence or absence in individual languages of a given pattern of word-formation having the character of a Stirps does not depend on the grouping of the languages in question into branches of the Semito-Hamitic family. Thus, there is no T-Stirps in Aramaic although this type exists in the other languages of the Semitic branch. Stirpes of all six types may in principle be present in any branch.

However, in the Tchad branch and in some of the Cushitic languages the Stirpes of the S- and T-types are formed

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<sup>110</sup> We introduce letter-symbols for the different Stirpes following the usage common in Assyriology.



by suffixation instead of prefixation. This phenomenon is also known in Berbero-Libyan. The Stirpes of the M-type replace those of the N-type in Cushitic and co-exist with the latter in Berbero-Libyan. The M-type is absent in Semitic<sup>111</sup> and in Egyptian; in the latter branch there are only survivals of the N- and T-types. The complete reduplication or reduplication of two radicals as a means of Stirps-formation is nearly totally absent in Semitic but is widely used in the other Semito-Hamitic languages.

In order to give a notion of Stirps-formation in Semito-Hamitic we will in Table X present some of the systems. The Semitic forms are reconstructed Common Semitic, Cushitic is represented by Bedawye, and the Tchad languages by Hausa. We have not included combined Stirpes and some of secondary formation. The verbal roots are conventional, serving *exempli gratiâ* only to illustrate the pattern. The forms included in the table are Perfective (except in Egyptian and Tchad); a few of the others may be found in the notes.

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<sup>111</sup> The disappearance of the M-Stirpes in Semitic is probably to be connected with the peculiarities of the formation of participles in this branch. In the other branches of Semito-Hamitic the participles are formed by external inflection, possibly from the stem of the Imperfective or a similar one. Thus, the Participle of Action: Berb. *i(ə)-frəs-n*, Bed. *fādg-i*; the Participle of State: Bed. trans. *fādg-a* < *\*fādg-aṡa*, intrans. *nekās-a* < *\*nakās-aṡa*, Hausa *kirarre* from *kira*, *sojajje* from *so* < *\*kirar-je*, *\*sojaj-je*(?) where *\*kirar-*, *\*sojaj-* is the Habitative (?) stem with full vocalism which has been replaced in the Imperfective by another stem of a noun of action, *kira-ṡa*. In Semitic all participles of the derivative Stirpes are formed by prefixation of *m(u)-*.

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Type of the Stirps	Semitic (Old Perfective; with suffixed <i>-u-</i> — “New Imperfective”) <sup>1</sup>	Berbero-Libyan
G	* <i>ia-prus</i> (main Stirps)	* <i>i-frās</i> (main Stirps)
A	* <i>iu-pāris</i> (Conative, Co-operative)	* <i>i-farās</i> (Conative; rare)
D		
(a) complete reduplication	(—)	* <i>i-frāsforās</i>
(b) partial reduplication	(rare types)	* <i>i-frās-rās</i> etc.
	(rare types)	* <i>i-forurrās</i> (Intensive, Iterative)
(c) reduplication of 3rd radical	* <i>ia-p(a)rasis</i> (rare type)	(rare types)
(d) reduplication of 2nd radical	* <i>iu-parris</i> (Factitive; Intensive; Causative)	(used for the Perfective- Ilabitative of the different Stirps)
S	* <i>iu-ša-p(a)ris</i> (Causative)	* <i>i-ša-frās</i> (Causative; Factitive) * <i>ia-frās?</i> <sup>4</sup> (obscure)
T	* <i>ia-t(a)-para/is</i> (reversing the motion; Reflexive → Passive)	* <i>i-tā-frās</i> <sup>5</sup> (Reflexive → Passive) * <i>i-frās-at</i> (obscure)
N/M	* <i>ia-n-paris</i> (Reflexive → Passive)	* <i>i-nā-frās</i> * <i>i-mā-frās</i> * <i>i-m-nā-frās</i> (Reflexive, Reciprocal)

Notes: <sup>1</sup> The corresponding forms of the “New Perfective” are: \**parasa*, \**pārasa*, \**paras(i)sa*, \**parrasa*, \**ša-prasa*, \**i(a)-p(a)rasa*, \**i(n(a))-p(a)rasa*. The last vowel but one can also be different. In the Old Imperfective the last vowel of the stem is *a* throughout.

<sup>2</sup> In some Cushitic languages where the verbs of the old prefix-conjugation have completely ceased to exist or nearly so, the sign of the Stirps is suffixed; thus, in Somali *-si*, *-i* for the Causative, \**-at* for the Reflexive, \**-am* for the Passive.

<sup>3</sup> In the same sense also the suffixes *-r* and *-d* are used. Possibly the particle *da* was originally a demonstrative pronoun.

<sup>4</sup> The verbs with initial *i-a-* in the Perfective, *i-u-* in the Imperfective are very numerous in Berber; although a Causative sense of these forms has not been established, it is possible that they belong to a Stirps of the S-type (originally with a causative-reflexive or cau-

## Hamitic Verbal Stirpes

Egyptian	Cushitic (Bedawye) <sup>2</sup>	Tchad (Hausa)
<i>hsb</i> ; <i>gm</i> (main Stirps)	<i>i-fdig</i> ; <i>e-dir</i> (main Stirps)	<i>kira</i> (main Stirps)
?	<i>i-fādig</i> ; * <i>e-dār</i> (Factitive, Intensive, Iterative)	?
<i>gmgm</i>	(—)	<i>kikkira</i> (Intensive)
* <i>hsbsb</i> (Iterative; Factitive) (—)	<i>i-fifdeg</i> ; <i>e-dedir</i> (Iterative) (—)	(—) (—)
* <i>hsbb</i> (a rare type; an analogous form used for the Habitative of G)	(—)	?
* <i>hsb?</i>	(—)	(—)
* <i>s-hsb</i> ; * <i>s-gm</i> (Causative)	<i>i-se-fadig</i> ; <i>e-sō-dir</i> (Causative)	* <i>kira-s</i> ( <i>da</i> ) (Causative) <sup>3</sup>
} (survivals) }	<i>i-t-fedāg</i> ; <i>e-tō-dār</i> (Reflexive)	* <i>kira-ta</i> (Denominative)
* <i>n-gmgm</i> etc. (obscure; rare)	<i>i-mē-fdāg</i> ; <i>e-mō-dār</i> (Co-operative and Reciprocal)	(—)

sative-passive sense?) with *s* > *h*: Perfective *iagdāh* 'he is sufficient' < \**iū-ha-gdi/as* (?), Imperfective *iū-gdāh* > \**iū-h(a)-gada/is* (?); cf. the parallel coexistence of Causative Stirpes of the types \**iū-ša-pris* and \**iū-ha-pris* > \**iapris* in Ugaritic and Old Aramaic and the probable correspondence of Common Semito-Hamitic *s* ~ Berb. *h* > zero in the pronouns.

<sup>5</sup> The forms with the *-tt-* prefix, like the forms with the reduplication of the second radical (or, when the first radical consonant is lost, of the first of the preserved consonants) perform the function of Perfective Habitative. One should keep apart the forms of the Stirpes of the T-type from secondary Stirpes formed in Berber by the prefix \**tiy-* with a reflexive sense. The latter form is probably akin to the Egyptian "Passive" of the pattern *sām-tw-f* where *tw* is originally a non-personal pronoun of the type of the German *man* (A. Klingenberg).

## CONCLUSION

To make the result of our discussion of the main problems more comprehensible we will in Table XI present the main isoglosses connecting the branches of the Semito-Hamitic family (lexical isoglosses not included, see Table III).

Thus, on the evidence of 23 chosen criteria the most numerous isoglosses are those connecting Semitic and Berber, and Egyptian and Berber; there are many isoglosses connecting Semitic and Egyptian, Berber and Cushitic, Cushitic and Tchad. The isoglosses connecting Semitic and Egyptian, on one hand, and Tchad on the other, are the least numerous. Although the data must be regarded as very preliminary, it still may be taken for granted that the Tchad branch was the earliest to separate from Common Semito-Hamitic.

Hypothetically, the historical picture may be reconstructed as follows: Common Semito-Hamitic, originally occupying the area of the Sahara,<sup>1</sup> had at a period not later than the 6th millennium B. C.<sup>2</sup> bifurcated into a Northern and a Southern branch. The process of the formation of triconsonantal roots started in the Northern branch, and the internal inflection developed here to a greater degree than in the Southern; the method of forming the Plural by reduplication was here lost.

The Proto-Tchad language was the earliest to separate from the Southern branch.<sup>3</sup> The separation of Proto-Tchad probably antedates the loss of the root-vowel in the verbal root.

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<sup>1</sup> Cf. Д. А. Ольдерогге, *Хамитская проблема в африканистике*, «Советская этнография», 1949, № 3; by the same author, *Происхождение народов центрального Судана*, «Советская этнография», 1952, № 2; by the same author, *The Origin of the Hausa Language*, "Papers presented by the Soviet Delegation to the V International Congress of Anthropologists", Moscow, 1956.

<sup>2</sup> By the 5th-4th millennia B. C. all five branches can be supposed to have existed.

<sup>3</sup> Making this supposition we bear in mind the possibility that the peculiarities of the Tchad languages may be partly illusory, due to our comparing a New stage language with languages at earlier stages. Still, as has been pointed out before, some of the characteristic Hausan grammatical features may with some confidence be regarded as archaic.

## Semitic-Hamitic Isoglosses

Languages Character of the isogloss	Semitic	Berbero- Libyan	Egyptian	Cushitic	Tchad
<i>Root</i>					
Predominance of triconsonantal root	+	+	+	-	-
Presence of vowel in "normal" verb root	-	-	?	?	+
<i>Word-Formation</i>					
<i>ma-</i> a separate lexeme	-	-	-	-	+
Internal inflexion as main method of word-formation	++	+	+	+	-
<i>Noun</i>					
Sign - <i>u</i> of Masculine gender	-	(+)	+	+	-
Plural in - <i>ā-</i>	+	+	+	+	+
» in - <i>ān-</i>	+	+	-	+	?
» by lengthening of case-ending in Masc. gender	+	?	-	-	?
Plural by reduplication	-	-	-	(+)	+
<i>Pronoun</i>					
' <i>an-</i> in Personal Pronouns of the Direct case (1st and 2nd persons)	+	(+)	(+)	+	-
<i>ni-</i> in Personal pronouns of the Direct case (2nd and 3rd persons)	-	+	+	-	-
Ending - <i>t</i> in pronouns	+	+	+	-	+
Stems <i>n-</i> , <i>m-</i> in Pronouns of 1st person Sg. and Pl. in Direct case and in possessive forms	-	-	-	-	+
<i>Nota genitivi n</i>	-	+	+	-	+
<i>Nota genitivi d</i>	+	(+)	-	-	-
<i>Verb</i>					
Prefix-conjugation of both aspects	(+)	+	-	+	+
Lexical independence of the personal subject-element	-	-	-	-	+
Possessive construction with replacement of old finite verbal forms by nominal ones	-	-	+	-	-
Same, without the replacement	-	?	-	-	?
Supplementary particles between verbal stem and subject-elements	-	-	+	?	+
<i>Verbal Stirpes</i>					
Stirpes with complete reduplication	-	+	+	+	+
Stirpes of M-type	-	+	-	+	-
Suffixation of - <i>t</i> , - <i>s</i> in Stirpes-formation	-	+	-	as secondary feature	+

The next language to separate, this time from the Northern branch, was Egyptian. Characteristic of this language is the replacement of the original verbal construction which presumably was ergative by a possessive or prepositional construction. Certain phenomena of the same type may have occurred in the languages contacting Proto-Egyptian—in Tchad and in Berbero-Libyan—but there they certainly did not attain full development. The loss of the root-vowel in the verbal root was possibly not yet completed by the time of the separation of Egyptian. Of course there is no reason to regard Egyptian as a "Mischsprache" (i. e., a mixture with Semitic) as was frequently done by Egyptologists in the past. There are no features in Egyptian which might suggest its special proximity to Semitic more than to the other branches of the Semito-Hamitic family, and the common features that do exist are doubtlessly Common Semito-Hamitic. Several phenomena, especially the changes in the phonological system and a different verbal system, may rather be taken as evidence of an early separation of Egyptian from the common stock.

Proto-Semitic continued for a time its contacts at least with Berbero-Libyan belonging to the same Northern branch (cf. an identical verbal system, the type of the Plural, a considerable amount of common lexical material) but probably also with Cushitic in the Southern branch (cf. the emphatic element 'an- in the personal pronoun, the conjugation of the verb, the system of inflection in the noun, the Plural).

This means that the bearers of Proto-Semitic must still have dwelt in Africa after Egyptian had separated from Common Semito-Hamitic, and thus must have passed through the Delta from west to east when the valley of the Nile already was populated by the speakers of Egyptian, i. e., at some time in the beginning or the middle of the 5th millennium B. C.<sup>4</sup> This means that Arabia cannot have been the most ancient home of Semitic.

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<sup>4</sup> In the first half of the 3rd millennium B. C. there is documentary evidence of the presence of a Semitic population in Palestine and in Mesopotamia. It is to be supposed that the Semites must have settled in the Arabian Peninsula (a country in economic and ecological respects very similar to their original home) at a considerably earlier date. The subsequent wave-like intrusions of the Semites towards the North were due to the same cause which must have been responsible for their leaving the Sahara, namely, to the gradual deterioration of pastures for sheep in the droughty period setting in; and since neither the horse nor the camel were domesticated before the middle or the end of the 3rd millennium B. C., there was no possibility for yearly nomadic migrations, so that the pastures had to be used until they were completely exhausted by continuous grazing, and then left for new ones.

The Libyans, continuing to occupy the original area of habitation of the speakers of Common Semito-Hamitic, spread both eastwards, following the Semites into the Western Delta and the regions adjoining Egypt in the West, and westwards toward the Atlantic. The Cushites of the Southern branch, continuing for a long time their contact with the Libyans (and the Egyptians?), moved about the same time towards south-east where their language, just as was the case with Proto-Tchad, overlapped a strong local substratum.<sup>5</sup>

It seems that the hypothesis of a passage of the Semites through the Delta from West to East is not contradicted by archaeological data and may even be borne out by them. However, the discussion of this problem lies outside the scope of the present work.

\*       \*

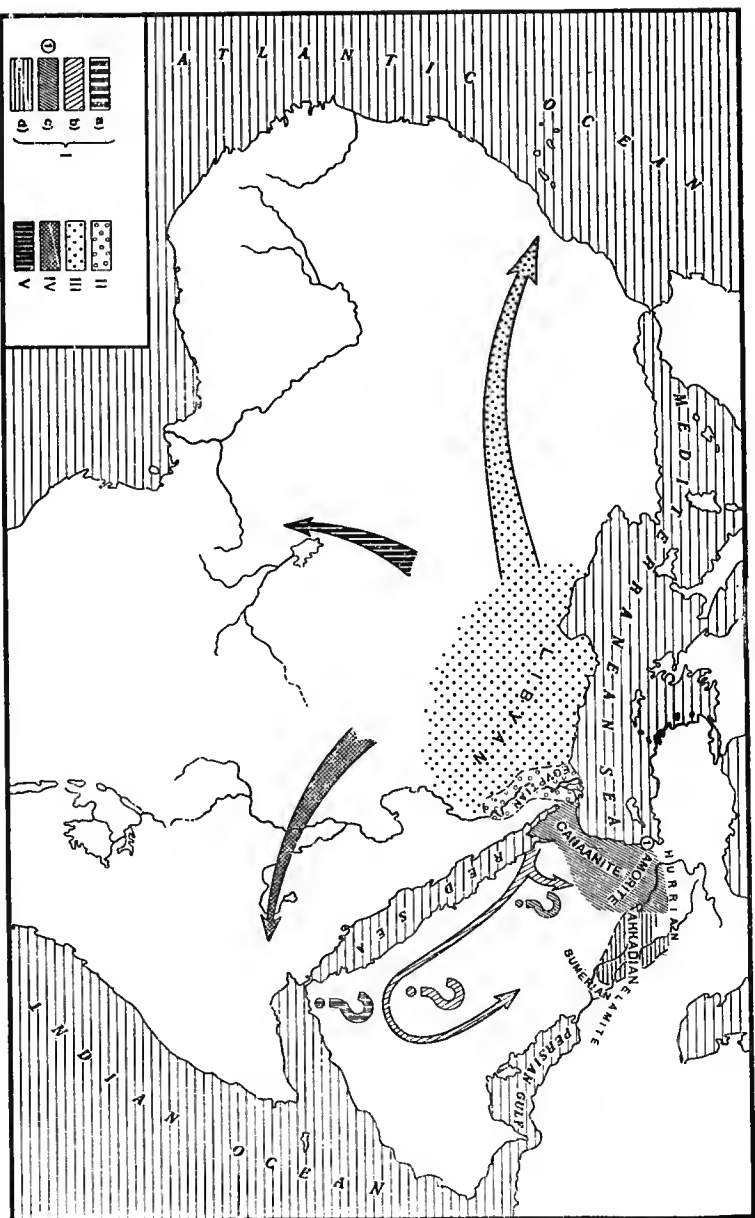
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It can be seen from the above how poor and approximate our data as to the character of the linguistic relationship between the branches of the Semito-Hamitic family are at present. It is possible that many of the hypotheses suggested in this paper will have to be revised. A strictly methodical investigation into the problem of phonetic correspondences and the establishment of the Common Semito-Hamitic root-stock, as well as the elaboration of a convincing theory of verbal constructions in Semito-Hamitic, particularly in Berbero-Libyan and in the Tchad branch, are indispensable. This and the study of the materials from Semito-Hamitic languages not discussed in the present paper would create a base for a more coherent reconstruction of the history both of individual Semito-Hamitic languages and of the entire linguistic family. Without taking the history of the whole Semito-Hamitic family into consideration, a clear understanding of the antecedents of the historically documented Semitic languages is not possible.

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<sup>5</sup> The population of the Arabian Peninsula probably was not numerous prior to the Semitic colonization. By this reason the Semitic languages, as well as Berbero-Libyan, show no noticeable traces of substratum phenomena (with the exception of later influence of the Sumerian and Hurrian substratum on the Semitic languages of Mesopotamia and Syria). The typological resemblances between the more ancient languages of the Near East and Semitic are the result of similarity in linguistic development.

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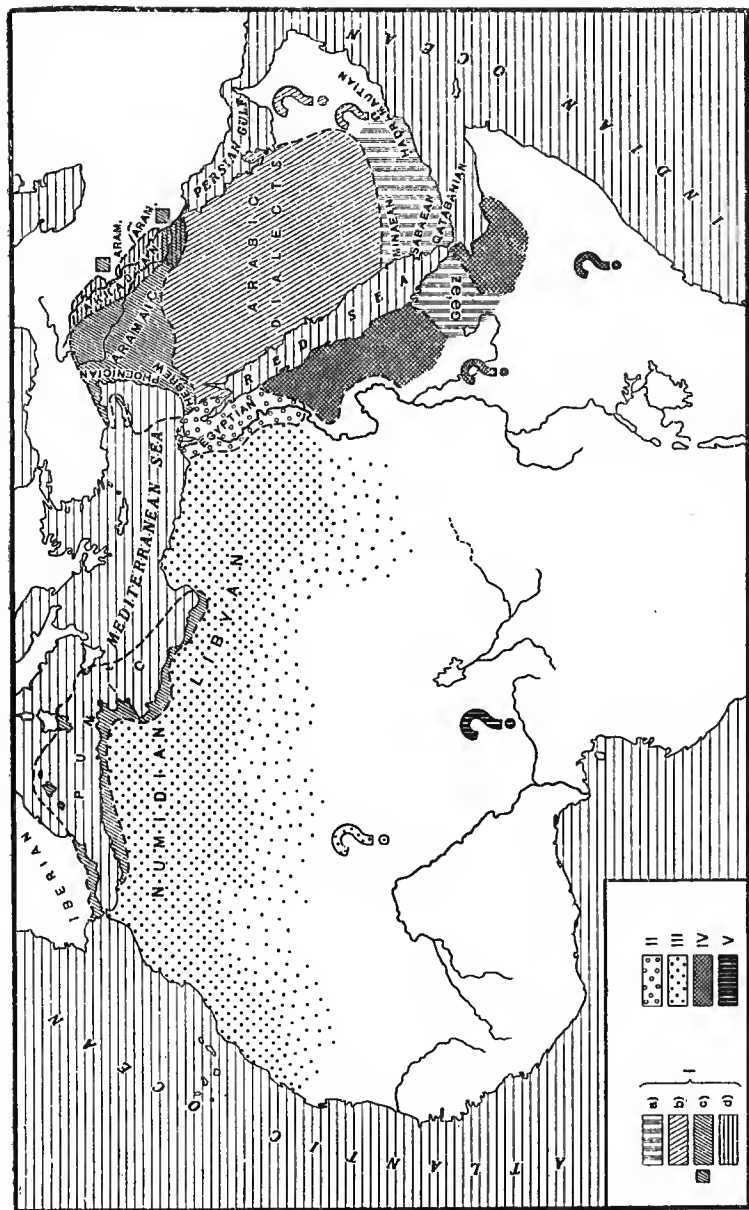
Map I. Distribution of Semito-Hamitic Languages in the 3rd Millennium B. C.

*I Semitic languages*

- a) Southern Peripheral; b) Southern Central; c) Northern Central; 1—Ugaritic (2nd mill. B. C.); d) Northern Peripheral

*II Egyptian language; III Berbero-Libyan languages; IV Cushitic languages; V Tchad languages*  
Pointers indicate the approximate direction of settling of speakers of a given group. Queries indicate the probable settlement area of speakers of a given group.





Map II. Distribution of Semito-Hamitic Languages in the 1st Millennium B. C.

I Semitic languages

a) Southern Peripheral; b) Southern Central; c) Northern Central; d) Northern Peripheral

II Berbero-Libyan languages; III Egyptian language; IV Cushitic languages; V Tchad languages

## APPENDICES

### SAMPLES OF TEXTS

#### Akkadian

##### 1) Old Babylonian (Laws of Hammurapi, § 3)

*šummā aqīlum ina dīnim ana šībūt sarratim ūši'ammā, aqāt iqbū lā uktīn, — šummā dīnum šū dīn napištīm, aqīlum šū iddāk.*

##### 2) Literary "Young Babylonian" (The Epic of Gilgameš, VIII, 1 ff.)

*anāku amātmā ul kī Enkidumā? nissatu iterub ana karšī-ia, mūta aplahmā, arappud šēra; ana līt Utnapišti, mār Ubār-Tutu, urḫa šabā-kūmā, ḥanṭiš allak.*

##### 3) Literary "Young Babylonian" (The Epic "Enūma eliš", I, 1 ff.)

*enūma eliš lā nabū šamāmī, šapliš ammatu šuma lā zakrat, . . . ib-banū ilī kereb-šun...*

#### Translation:

1) If a man at a trial appears for false evidence (= in order to present a false evidence), and does not substantiate the word he has spoken,—(then), if the trial is a trial of life (and death), this man shall be killed.

2) (Even) I, shall I not die too, just as Enkidu? Sorrow has entered into my stomach, I have become afraid of death, and I run (through) the steppe; to the power (?) of Utnapišti, the son of Ubār-Tutu, I make (my) way, hurriedly I go.

3) When the heavens above were not named, the dry land below was not given a name, . . . the gods were created in their middle...

#### Notes:

*šummā* 'if'; Common Semitic \**šin/m* 'if' + enclitic conjunction *-mā*.

*aqīl*- n. subst. m. 'man'; N. Sg. with mimation *aqīlum*. NB: all words beginning with a vowel have in reality a 'Anlaut not reproduced in this transcription.

*ina* preposition.

*dīn*- n. subst. m. 'justice', here 'trial'; N. Sg. with mimation *dīnum*, G. *dīnim*, St. constr. N. *dīn*.

*ana* preposition.

*šībūt*- n. subst. f., abstract noun in *-ūt*- from \**šīb*- 'gray-haired, old', 'elder, witness'; St. constr. *šībūt*.

*sarr*- n. adj. 'false'; f. used as abstract noun 'lie'. G.f. with mimation *sarratim*; lit. 'evidence of lie'.

*ūši'ammā* < \**ia-ūši'-am-mā* 3rd p. m. Sg. Jussive from root \**wš*' 'to go out' + 'ventive' suffix (originally suffixed pronoun of the 1st person of the indirect object) + enclitic conjunction *-mā*.

*aḡāt-* (root \**hḡl*) n. subst. f. 'word'. St. const. *aḡāt*; the Status constructus here introduces a subordinate clause.

*ikbū* < \**īa-kbī*(')-u 3rd p. m. Sg. Perfective Subjunctive from root \**kbi* 'to say'.

*lā* negation.

*uktīn* < \**īu-k-ta*-'in 3rd p. m. Sg. "Perfect", Stirps D, root \**kūn* 'to be constant'. The use of the "Perfect" (infix *-ta-*) denotes that the action has been perfected after another action (here *ikbū*).

*napišt-* n. subst. f. 'soul, life'; G. with mimation *napištim*.

*šū* demonstrative pronoun (also personal pronoun, 3rd p. m. Sg.).

*iddāk* < \**īa-n-du*'ak 3rd p. m. Sg. Imperfective, Stirps N (reflexive) from root *dāk* 'to kill'.

*anāku* 'I' (emphatically stressed).

*amātāmā* < \**amu*'at-mā, 1st p. Sg. Imperfective from root \**mūt* 'to die' + enclitic conjunction -mā.

*ul* negation.

*kī* preposition 'as', 'like'.

*Enkidu* borrowed proper name, indeclinable (Genetive !) + enclitic conjunction (here in the sense "just as E." Long -ā due to inter rogation).

*niss-at-* n. subst. f. 'sorrow', N. *nissatu*. The mimation has been lost at this period.

*īterub* < \**īa-γ-ta-rub*, 3rd p. m. Sg. "Perfect" from root \**γrb* 'to enter', denotes action perfected after the preceding (sc. *Enkidu imūt* 'E. died').

*karš-* n. subst. m. 'stomach'; *karšī-īa* G. St. pron. + suffixed possessive pronoun of the 1st person.

*mūt-* < \**mayt-* n. subst. 'death'; Acc. *mūta*.

*aplahmā* 1st p. Sg. Perfective transitive from root \**plh* 'to be afraid; to revere' (a instead of u due to influence of *h*) + enclitic conjunction.

*arappud* 1st p. Sg. Imperfective from root \**rpd* (verb of motion, construed with Acc.).

*šēr-* n. subst. m. 'steppe', Acc. *šēra*.

*līt-* n. subst. f., St. constr. *līt*.

*Utnapišti*, *Ubār-Tutu*, proper names, indeclinable.

*mār-* < \**mar*'- n. subst. m. 'son', St. constr. *mār*.

*urḡ-* n. subst. m. 'way', Acc. *urḡa*.

*šabtākūmā* 1st p. Sg. Stative from root \**šbt* 'to take, to hold', here in an active sense, hence construed with direct object: 'I have taken the way and still keep to it'. Enclitic conjunction -mā.

*ḡanṡiš* < *ḡamī-is* adverb formed with Dative-Locative ending -is from adjective *ḡamṡ-* 'quick, speedy'.

*allak* 1st p. Sg. Imperfective from root \*(*h*)/lk 'to go'.

*enūmā* 'when'.

*eliš* 'above', *šapliš* 'below'. Cf. *ḡanṡiš*.

*nabū* < \**nabi*(')-ū, 3rd p. m. Pl. Stative from root \**nbi* 'to call, to name'. Sense passive.

*šamāmī* n. subst. m. Pl., poetic form of *šamā*'- 'heaven' with suffix -ām-. At this period the N. Pl. ending -ū has been replaced by the Oblique case in -ī (though still sometimes written -ū).

*amm-at-* n. subst. f. 'dry land'.

*šum-* n. subst. m. 'name', Acc. *šuma* in an instrumental sense.

*zakrat* < \**ḡakir-at*, 3rd p. f. Sg. Stative from root \**ḡkr* 'to name'. Sense passive.

*ibbanū* < \**īa-n-banī*(')-ū 3rd p. m. Pl. Perfective, Stirps N (reflexive → passive) from root \**bni* 'to build, to create'.

*il-* n. subst. m. 'god'; Obl. Pl. *ilī* (here for Nominative).

*ḡerb-* < \**ḡarb-* n. subst. m. 'intestines', here as preposition 'inside'; *ḡereb-šun* < \**ḡar(a)b-šunu* St. pronominalis + suffixed possessive pronoun of the 3rd p. m. Plural.

## Arabic (Classic)

(Н. В. Юшманов, *Строй арабского языка*, Ленинград, 1938, стр. 51)

*ḡadima 'ilā Ma'ni bni Zā'idata 'asrā; fa-'amara Ma'nun bi-ṭa'āmin, fa-'uḡdirat-(i)l-mā'idatu ḡa-'alaj-hā ṭa'āmun; fa-ṭtama'ū ḡa-'akalū, ḡa-Ma'nun ianzuru 'ilaj-him; fa-lammā farayū, kāma raṭulun min-hum ḡa kāla: "aṭṭuhā-l-'amīru, (u)nṣur, mā-dā ṭaṣna'u mitlu-ka bi-'aḡṭāfi-hi?", fa-ḡalla sablla-hum.*

### Translation:

(There) arrived prisoners-of-war to Ma'n, son of Zā'idah, and Ma'n ordered to feed (them), and (there) was brought the table, and food on it; and (the prisoners) gathered and ate, and Ma'n was looking at them; and after they were ready, a man amongst them stood up and said: "Oh, (my) lord, look, what (is) it that the like of thee ought to do to his guests?", and (Ma'n) sent them home.

### Notes:

*ḡadima* 3rd p. m. Sg. "New Perfective" intransitive from root \*ḡdm 'to arrive'. A verb standing before its subject is not in concord with it as to number.

'*ilā* preposition ('*ilaj-* with suffixed pronoun).

*Ma'n-* proper name; N. with nunation *Ma'nun*, G. *Ma'ni(n)*: no nunation when determined by an attribute.

(*i*)*bn-* n. subst. m. 'son' G. St. constr. (*i*)*bni*.

*Zā'idatu* proper name, diptotic, G.-Acc. *Zā'idata*.

'*asrā* Pluralis fractus < \*'*asrāju*, diptotic (hence without nunation), Sg. *asīr-* 'prisoner-of-war'.

*fa-* conjunction, denotes change of subject.

'*amara* 3rd p. m. Sg. "New Perfective" from root \*'mr 'to say, to order'.

*bi-ṭa'āmin* lit. 'in food', see *ṭa'ām-*.

'*uḡdirat* 3rd p. f. Sg. "New Perfective" passive, Stirps S (\*s > 'y) from root \*ḡṣr.

*mā'id-at-* n. subst. f. 'table'; with article, N. *al-mā'idatu* (no nunation!). The vowel of the article elided.

*ḡa-* conjunction.

'*alaj-* preposition (+ suffixed possessive pronoun of the 3rd p. f. Sg. -*hā*).

*ṭa'ām-* verbal noun from root \*ṭ'm 'to eat, to taste, to gulp down';

N. Sg. with nunation *ṭa'āmun*.

(*i*)*ṭtama'ū* 3rd p. m. Pl. "New Perfective", Stirps T (reflexive) from root \*ḡm' 'to gather'.

'*akalū* 3rd p. m. Pl. "New Perfective" from root \*'kl 'to eat'.

*ianzuru* 3rd p. m. Sg. "New Imperfective" transitive from root \*nṭr 'to look', 'to watch'.

*lammā* 'after'.

*farayū* 3rd p. m. Pl. "New Perfective" from root \*pry 'to get ready'.

*kāma* 3rd p. m. Sg. "New Perfective" from root \*kūm 'to stand up'.

*raṭul-* n. subst. m. 'man'; N. with nunation *raṭulun*.

*min-hum* preposition *min* 'from' + suffixed possessive pronoun of the 3rd p. m. Pl. -*hum*.

*kāla* 3rd p. m. Sg. "New Perfective" from root \*kūl 'to speak, to say'.

'*aṭṭuhā* interjection.

(*a*)*l-'amīru* n. subst. m. N. with article 'lord'.

(*u*)*nṣur* Imperative of \*nṭr 'to look'.

*mā-dā* a combination of two (originally demonstrative) pronouns.

*ṭaṣna'u* 3rd p. m. Sg. "New Imperfective" transitive (*a* due to influence of 'y) from root \*ṣn' 'to make'.

*miṭl*- n. subst. m. 'equation, equivalent'; St. pronominalis with suffixed possessive pronoun of the 2nd p. m. Sg. *-ka*.

*bi*- preposition.

*'adīāf*- Pluralis fractus, Sg. *ḍaif*- 'guest'. Root *\*šīp*; *-hi* (< *-hu* after *-i*) suffixed possessive pronoun of the 3rd p. m. Sg.

*ḥalla* < *\*ḥalala* 3rd p. m. Sg. "New Perfective" transitive, root *\*ḥll* 'let go'.

*sabīl*- n. subst. m. 'way'; Acc. loci St. pronominalis with suffixed pronoun of the 3rd p. m. Pl. *sabīla-hum*.

### Berber (Kabyle, or Zouaoua)

(R. Basset, *Manuel de langue kabyle*, II, Paris, 1887, p. 6)

*nək uṣal-əγ γər u-ḍrar*; *i-brid-an ḍiriṭ-ən*; *ta-sərdun-t inu ur ta-zmir*; *a-sif iaḥməl*; *əns-iγ γ-Təlammət*; *bəṭṭi-γ a-γərum id sin i-rgaz-ən d-i-fkīr-ən*, *d-i-msafər-ən γ(ə)f-i-ḍar-ən ən-sən*.

Translation:

I arrived at a mountain; the roads (were) bad; my she-mule could not manage; the river overflowed; I spent the night in Təlammət; I shared the bread with two men, poor (and) wandering on foot.

Notes:

*nək* 'I'.

*uṣal-əγ* 1st p. Sg., root *\*uṣl* 'to arrive.' Arabism.

*γər* preposition (originally noun, hence St. annexus in the next word).

*u-ḍrar* n. subst. m. Sg., St. annexus 'mountain'.

*i-brid-an* n. subst. m. Pl. 'roads'.

*ḍ*- particle before adjectival attribute.

(*ḍ*)*iriṭ-ən* irregular form of Qualitative (3rd p. m. Pl.) from (*ḍ*)*iri* 'to be bad'.

*ta-sərdun-t* n. subst. f. Sg. 'she-mule'. In Kabyle, *t* corresponds to Common Berber *t* (but *t* after *n*).

*inu* Possessive pronoun of the 1st p. Sg. introduced by nota genitivi (*i*)*n*.

*a-sif* n. subst. n. Sg., St. liberus 'river'.

*iaḥməl* Arabism 'overflowed'.

*əns-iγ* 1st p. Sg. from *əns* 'to spend the night'.

*γ*- preposition.

*bəṭṭi-γ* 1st p. Sg., root *bəṭṭu* 'to divide'.

*a-γərum* n. subst. m. Sg., St. liberus 'bread'.

*id* preposition.

*sin* 'two'.

*i-rgaz-ən* n. subst. m. Pl. 'men'.

*i-fkīr-ən*, *i-msafər-ən* n. adj., Arabisms 'poor', and 'wandering'.

*γ(ə)f*- preposition.

*i-ḍar-ən* n. subst. m. Pl. 'feet'.

*ən-sən* possessive pronoun of the 3rd p. m. Pl. (nota genitivi *ən*- + suffixed pronoun).

### Egyptian (Old Egyptian)<sup>1</sup>

(*Urkunden des ägyptischen Altertums*, I, p. 100—101)

*st w(y) m z'b*, (*i*)*r(y) Nḥn*, *rdy w(y) ḥm.f m smr w't(y)*, (*i*)*m(y)-r' ḥnt(yw)-š pr-'*; *nš.n(y) 4 (i)m(yw)-r' ḥnt(yw)-š pr-'*, *wnw im*; *ir.k(wy) r ḥst ḥm.f m irt stp-z'*, *m irt w't n(y)-swt*, *m irt 'h'w*; *ir.k(wy) my kḏ*

<sup>1</sup> I am greatly indebted to G. Perepelkin for the selection of the text and consultation in connection with it.

*r hst w(y) hm.f hr.s r (i)ht nb. . . n ikr(y), n w'b(y) hr ib n(y) hm.f. . . ink ir(y) m zš w'.k(wy) hn' z'b, (i)r(y).Nhn w'.*

#### Translation:

Now, (when) I (was) judge, keeper of Hieraconpolis, his majesty set me up as (his) only friend, the chief of the *hntyw-š* (a social category) of the palace; I supplanted four chiefs of the *hntyw-š* of the palace who were there; I did according to what his majesty praised in preparing the guard, in preparing the way of the king, in preparing the resting-place; I did so that his majesty praised me for it exceedingly. . . because I was skilled, because I was pleasant for the heart of his majesty. . . I (was it who) made (things) into writing, being alone with the judge, the only keeper of Hieraconpolis.

#### Notes:

Brackets denote parts of words not expressed in writing.

*št* 'now'.

*wy* Dependent Personal pronoun, 1st p. Sg. (depending on *št*).

*m* 'in'.

*m z'b* 'in (the quality of) judge'; cf. *m smr* 'in (the quality of) friend'.

*rdy* 'to give', here 'to set up', verbal form *sđm.f*, which we have conventionally called "Imperfective" (not to confuse with the "Habitative" form of *sđm.f*), here expressing the Past tense; 3rd p. Sg. masculine.

*hm.f* 'his majesty'.

*w'ty* 'only', Adjective with relative suffix *-y*.

*pr-* lit. 'great (') house (*pr*)'.

*nš.n.y* 'to supplant', verbal form *sđm.n.f* which we have conventionally called "Perfective"; 1st p. Sg.

*wnw* one of the participles (Pl.) of the verb 'to be'.

*im* 'there'.

*ir.kwy* Qualitative-Stativ, 1st p. Sg. 'I did, I made'; *r* 'to'.

*hsy* 'to praise'; the form *hst* is in the first case a passive participle, in the second—a relative finite form.

*irt* 'making', Infinitive of *try* (feminine).

*ny-swł* 'king' construed as a phrase governed by the nota genetivi.

*w't* 'way' (feminine).

*h'w* verbal noun from *h'* 'to stand, to stop'.

*my kd* lit. 'as (the) image', i. e., 'in a way that'.

*hr* 'on'; *hr.s* same with the suffixed possessive pronoun of the 3rd p. f. Sg. (here 'it').

*iht* 'thing' (feminine).

*nb* 'every' (not in concord with the noun). The phrase *r iht nb* means 'exceedingly'.

*n* 'for', here introduces a subordinate clause (in the sense of 'because').

*ikr.y, w'b.y* verbal form *sđm.f*, 1st p. Sg; cf. Sem. *u/ikr* 'to be rare, dear'.

*n(y)* nota genetivi.

*ink* 'Personal Independent pronoun' (emphatic), 1st p. Sg.

*iry* Participle of the verb 'to do, to make'.

*w'.kwy* Qualitative-Stativ, 1st p. Sg. 'to be alone'.

*w'* 'one'.

#### Bedawye (Had'endawa dialect)

(L. Reinisch, *Die Bedawye-Sprache in Nordost-Afrika*, I, Wien, 1895, pp. 56-57)

1) *Mar'tad i'bābja*, 'Massir 'ēbē, *ma'lō tīrg* 'i'sa', *So'dān 'ēbē*, *Sodā'nīb i'sa'*, *yū-'ōr-'ūh al'hija*; 'had'a *da'hā 'ēta*: "ane 'mhēlane" 'tēne; *te-'had'a yū-'ōr mē'hēlta*, *yū-'ōr i'ia'*.

2) *Sul'tān* 'ife, 'ōt 'ibire; *tū*-*'ō*t-*ūh* 'markab *ti*'hā<sub>i</sub>, *i*'bābta. Tak 'ekhan *sul'tāni* *tō*-*'ō*rt; *ūn* *ū*-*tak* 'markab *dem*'a'rāb 'šān<sub>i</sub>ā.

Translation:

1) Martad went away, came to Cairo, dwelled (there for) two months, came to Sudan, dwelled in Sudan, his son fell ill; an old woman came to (him), said "I will treat (him)"; the old woman treated the son, the son died.

2) (There) was a sultan, he had a daughter; his daughter boarded a ship (and) went away. A man fell in love with the sultan's daughter; this man loaded gold (into the) ship.

Notes:

*ibāb* 3rd p. m. Sg., *ibābta* 3rd p. f. Sg. Perfective, "new (weak) conjugation", verb *ibāb* 'to travel' < Arab. *hibāb*; -*ia* < \**ia*-*'an*; -*ta* < \**ta*-*'an*.

*ēbē* 3rd p. m. Sg. Perfective, "old (strong) conjugation", verb *bā<sub>i</sub>* 'to come'.

*malō* 'two'.

*tirga* 'months', Sg. *terig*.

*isa* 3rd p. m. Sg. Perfective, "old (strong) conjugation", verb *sā* 'to dwell'.

*Sodānīb* Acc. loci (-*b* < \**-ya*; -*μ* masculine ending + -*a* Acc. ending).

(*μ*)*ū* N., *μō* Acc. masculine article.

'*ōr* n. subst. m. 'son'; '*ōr*-*t*, '*ōt* n. snbst. f. 'daughter';

*-ūh* dialectal for -*ūs*: suffixed possessive pronoun of the 3rd p. m. Sg. -*s* > -*h* with the connective element -*ū*-.

*shī<sub>i</sub>ā* 3rd p. m. Sg. Perfective "new conjugation", verb *lah* || *alh* 'to be or fall ill?'

*had*'*a* n. subst. 'old man; old woman'. L. Reinisch' text has *had*'*āt* which is the form of Accusative. Mistake, or dialectal form?

*dāha* postposition.

*ēta* 3rd. p. f. Sg. Perfective, "new (weak) conjugation", verb *i<sub>i</sub>* 'to come'; -*ta* < \**ta*-*'an*.

*ane* *mhēlane* dialectal form for *anī* *mhēlani*; *anī* 'I', *mhēlani* 1st p. Sg. Imperfective, "new conjugation" verb *māhēl*; -*ani* < \**a*-*ani*; *māhēlta*

3rd p. f. Sg. Perfective, "new conjugation".

*tēne* 3rd p. f. Sg. Imperfective, "old (strong) conjugation", verb *an* 'to say'.

*te*-*had*'*a* Allegro-form for *tū*-*had*'*a*; *tū* N., *tō* Acc. feminine article.

*iā*' 3rd p. m. Sg. Perfective, "old conjugation", verb *iā*'*i* 'to die'.

*sultān* Arabism, G. *sultāni*.

*ife* 3rd p. m. Sg., Perfective "old conjugation", verb *fā<sub>i</sub>*, *hā<sub>i</sub>* 'to be'.

*ibire*, do, verb *bari* 'to have'.

*markab* Arabism 'ship'.

*tihā<sub>i</sub>* 3rd p. f. Sg. Perfective, Stips A, "old conjugation", verb *hā<sub>i</sub>* 'to dwell'.

*tak* n. subst. m. 'man'.

*ekhan* 3rd p. m. Sg. Perfective, "old conjugation", verb *kehan* 'to love'.

*ūn* demonstrative pronoun.

*dem*'*arab* n. subst. m. Acc. 'gold'.

*šān<sub>i</sub>ā* 3rd p. m. Sg. Perfective, "new conjugation", cf. Arab. *za'ana*, Mehri *šhān* 'to load' (borrowed?).

## Hausa <sup>2</sup>

(G. Mischlich, "Über Sitten und Gebräuche in Hausa", *Mitteilungen des Seminars für Orientalische Sprachen d. Friedrich-Wilhelm-Universität*, X, III. Abt., 1907, p. 155: cp. M. A. Смирнова, *Язык хауса*, М., 1960, p. 69).

<sup>2</sup> In normalized orthography.

*Asalin hausawa an ce, waɗansu mutane ne, wa da kane; su ka zo daga kasal larabawa da matan su biu. Su ka zamna wani jeji kusa da kasal Barno, sunansa Gabi, su ka yi bukoki, su na halbin namun jeji, don su ma-halɓa ne, har matar kanen nan ta haifi ya...*

#### Translation:

The origin of the Hausans, they say, (was that there) were certain men, an elder and a younger brother; they came from the land of the Arabs with their two wives. They settled in a certain deserted place near to the land of Barno, called Gabi, they built huts, (and) they were hunting game, because they were hunters, until the wife of this younger brother bore a daughter...

#### Notes:

- asali* n. subst. 'origin'; -n nota genitivi.
- hausawa* n. subst. Pl. (Sg. *bahaushe*) 'Hausans'.
- an* impersonal pronoun.
- ce* v. 'to tell'.
- waɗansu* pron. Pl. (Sg. *wani*) 'certain'.
- mutane* n. subst. Pl. (Sg. *mutum*) 'men'.
- ne* copula.
- wa* n. subst. 'elder brother'.
- da* (1) conjunction 'and'; (2) preposition 'with'.
- kane* n. subst. 'younger brother'; -n nota genitivi (used also with an adjectival attribute).
- zo* v. 'to come' (cf. *za* 'to go, to walk'); *su ka zo* 'they came', Past tense, 3rd p. m. Pl.
- daga* preposition 'from'.
- kasa*, *kasa* n. subst. 'land'; -l nota genitivi.
- larabawa* n. subst. Pl. (Sg. *balarabe*) 'Arabs' (< Arab. *al-'arab*).
- mata* n. subst. Pl. (Sg. *mace*) 'women'; -n nota genitivi; *mata* also Sg. 'wife', nota genitivi -r.
- su* possessive pronoun of the 3rd p. m. Pl.
- biu* 'two'.
- zamna* v. 'to settle'. Cf. *zo*.
- wani* see *waɗansu*.
- jeji* n. subst. 'deserted place'.
- kusa da* prepositional phrase 'near to'.
- suna* v. subst. 'name'; -n nota genitivi + *sa* possessive pronoun of the 3rd p. m. Sg.
- yi* v. 'to make'. Cf. *zo*.
- buka*, Pl. *bukoki* n. subst. 'hut'.
- halbi* 'hunt'; *su na halbi* 3rd p. m. Pl. Imperfective; the form *halbi* being a (verbal) noun, it is construed as such with the object in the Genitive, governed by the nota genitivi -n.
- nama* n. subst. 'meat'; with nota genitivi *namu-n*; *namun jeji* idiom 'game', lit. 'meat of the desert place'.
- don* preposition; here 'because'.
- su* pron. 'they'.
- ma-halɓ-a* n. subst. Pl. (Sg. *ma-halbi*) 'hunters'.
- har* 'until'.
- nan* demonstrative pronoun.
- haifi* v. 'to bear (a child)'; *ta(-n) haifi* 3rd p. f. Sg. Perfective.
- ya* n. subst. 'daughter'.



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## ABBREVIATIONS

Akk.	— Akkadian	Lib.-Num.	— Libyan-Numi- dian
Arab.	— Arabic	Old Akk.	— Old Akkadian
Aram.	— Aramaic	S.	— South Tchad
Bed.	— Bedawye	Sem.	— Semitic
Berb.	— Berber	Som.	— Somali
C.	— Central Tchad	Tam.	— Tamašek
Comm. Cush.	— Common Cu- shitic	Ugar.	— Ugaritic
Comm. Sem.	— Common Se- mitic	W.	— West Tchad
Copt.	— Coptic	*	— reconstructed form
Cush.	— Cushitic	>	— changes into
Dem.	— Demotic	<	— is derived from
E.	— East Tchad		— alternates
Eg.	— Egyptian	/	— or
Eth.	— Ethiopic	~	— corresponds to
H.	— Hausa	[ ]	— articulated
Hebr.	— Hebrew	'	— stress
Kab.	— Kabyle		

# CORRIGENDA

p. 19, line 15 from top:	for	(voiced) and	read	'(voiced) and
p. 24, Table I, point (9) (three times)	»	"	»	'
Table I, point (11) column «Egyptian»	»	<i>i (y)[i]</i>	»	<i>i (y/l)</i>
p. 26, Table II, column «Sontali», line 2 from bottom	»	<i>sʔ</i> ,	»	<i>ʔ</i>
Table II, column «Agau», line 3 from top	»	<i>p</i>	»	<i>p</i>
p. 32, note 44, lines 1-2		delete <i>lab-b-</i> 'lion' (C <sub>1</sub> əC <sub>2</sub> )		
p. 51, line 17 from top	for	<i>*nzk</i>	read	<i>*nzk</i>
p. 55, note 3, last line	»	<i>*lab-b-</i>	»	<i>*la'-b- &gt; lab'-</i>
p. 56, line 2 of note	»	and Cush.	»	and Eg. <i>rw</i> 'lion', Cush.
p. 81, note 3, line 2	»	Indicative but	»	Indicative (origi- nally in the Subjunctive I) but
p. 89, note 85, last line	»	<i>-ə (t)</i>	»	<i>-(ə)t</i>
p. 100, Table X, column «Berbero-Libyan»	»	(used for the Perfective-	»	(used for the Imperfective-
p. 103, Table XI, line «Ending- <i>t</i> . . .», column «Cushitic»	»	—	»	<i>ʔ</i>
Table XI, line «Suffixation of <i>-t</i> . . .», column «Egyptian»	»	—	»	(+)
p. 113, line 27 from top	»	ill?	»	ill'
line 15 (of main text) from below	»	do,	»	do.,

